



## *Report to the Auburn City Council*

Action Item

Agenda Item No.

**4**

City Manager Approval

**To:** Mayor and City Council Members  
**From:** Rich Ramirez, Interim City Manager  
Bernie Schroeder, Director of Public Works *BS*  
Megan Siren, Administrative Analyst *MS*  
**Date:** April 28, 2014  
**Subject:** Sewer Rate Study & Analysis Report

### *The Issue*

For the City Council to receive and file a report related to the 2014 Sewer Rate Update Study.

### *Conclusion and Recommendation*

Staff recommends that the City Council, BY RESOLUTION, preliminarily accept a sewer rate analysis and direct Staff to give notice of proceedings pursuant to Proposition 218.

### *Background*

On April 14, 2014, staff brought forth a status up regarding the Sewer Rate Study & Analysis update being completed by G Aronow Consulting. The Analysis identifies needed improvements to keep the wastewater treatment plant and sewer collection system in compliance with the California State Water Quality Control Board and the Federal Environmental Protection Agency requirements along with operating system improvements designed to avoid future system costs. At the April 14<sup>th</sup> City Council meeting the working draft for the Sewer Rate Study Update estimated the increase to the monthly Sewer Service Charges to be in the range of \$6.00 to \$8.00 over the existing rate. Staff is pleased to report that the final draft of the Sewer Rate Study Update shows the increase to the monthly Sewer Service Charge to be \$5.63 over the existing rate.

At that Council meeting several suggestions were made including but not limited to:

- What would it take to move away from the current billing format of billing based on Equivalent Dwelling Units (EDU) to a water consumption billing format, e.g.
- Detail why restaurants have a higher charge? If it can be demonstrated or justified to shift the restaurant rate, what would the new rate structure look like?
- Specify the amount programed for the Regional Sewer Project and what % of the sewer rate makes up the fee adjusting for use of reserves to write down capital costs
- Is there a way for the City to subsidize seniors regardless of one's ability to pay? If ability to pay is a consideration, staff would need more information from the City Council on this point?

### **Analysis**

The City last conducted a Sewer Rate Study in 2007 where the Council approved a 5 year rate schedule. Proposition 218 requires a Sewer Rate Study Update prior to any future Sewer Service Charges changes. The automatic rate adjustment to the current Sewer Service Charges expired on June 30, 2013. By not replacing the sewer rate necessary repayment of projected annual debt service related to capital projects will go unfunded. In particular, the Oxidation Ditch Improvement Project and the City's contribution to the Regional Sewer Common Pipeline Project, as well as other ongoing improvements to lift stations and collection system projects will not have a designated funding source. The Sewer Service Charges also needs to be adjusted for increased costs of operating and maintaining the sewer system (estimated at approximately 3-4% per year).

### **Sewer Billing Methodology**

There are a number of methodologies the City can utilize to assign sewer rates to its customers. Sewer rates are currently a flat rate based on an equivalent dwelling unit (EDU) which refers to a unit of measure that standardizes all land use types (housing, retail, office, etc.) to the level of demand created by one single-family housing unit. In the case of Auburn, 1 EDU is a single family home having 2.3 people per single family home (developed from 2012 City of Auburn census data) and each person is assumed to generate 80 gallons of wastewater per day (developed from WWTP flow records). One EDU also assumes wastewater strength of around 300 mg/L of biochemical oxygen demand which is a measure of the organic content of the water. EDU factors are assigned to customer classifications based on their relative flow and waste-strength compared to those EDU numbers. The City has 14 types of residential classifications (single family home, apartment, duplex, etc.) and 30 non-residential classifications (office, restaurant, car wash, etc.). The customer classification list and EDU factors were initially established in 1995 and have been modified slightly at each rate study. The EDU factors were originally based on guidelines from the *State Water Resources Control Board Revenue Program Guidelines*, last updated in March 1998. The cities of Roseville, SPMUD, Placer County, Folsom, and Sacramento all utilize an EDU basis for billing their customers.

Since around 2010 water providers have been required to install water meters and bill customers based on consumption of their potable water usage. Some cities have also charged wastewater rates based on water consumption (typically February meter data is used when outdoor water usage is minimized). The City of Davis charges all its customers based on the previous year's water meter data. The Cities of Woodland and Grass Valley charge its non-residential customers based on water meter data and residential customers are charged a flat rate. Many cities in the Bay Area utilize this approach using the water meter data. About half the cities in California utilize a flat rate EDU billing methodology and the other half base sewer rates on water meter records.

The City could utilize any of these approaches for billing its customers. However none are perfect. The flat rate "EDU methodology" has worked well for the City, is commonly used; allows the users to know their annual costs for sewer service, provides a stable revenue base, and represents the typical water use in Auburn. Most of the wastewater in town is generated by single family homes and the EDU calculation does not allow the City to distinguish between one or several people generating wastewater in each house. In contrast, utilizing winter water meter data to base wastewater rates is a better indication of actual water use, but is complicated to determine and implement. Each year the City would need to receive previous year's winter meter data from PCWA and recalculate each user's monthly wastewater rate. Residential water meters include both indoor

and outdoor water use. So, as an example, households that watered their yards this last February because of the drought would see an increase in their next year's sewer rates.

If the City Council desires to move to a consumption-based billing system (using on PCWA water meter data), the following actions would be required which would take between 12 – 18 months:

- 1) Revise the sewer rate study to reflect water meter data and a revised rate structure.
- 2) Conduct a public outreach campaign to educate residents and businesses on the new sewer billing methodology.
- 3) Complete Proposition 218 hearings for the new rate structure
- 4) Develop an agreement with PCWA for receiving water meter data annually.
- 5) Purchase and deploy a new software billing system for receiving customer data, meter data, and billing formulas.
- 6) Determine whether the City should bill its customers directly or have fees continue to be collected through the County tax roll

If desired, Staff could determine the additional costs and timeframes for moving to consumption based billing and report back to the Council at some point in the future.

#### **Review of Restaurant EDU Factor**

For this update to the sewer rates, staff recommends to continue to utilize the EDU methodology for the reasons described above. However, the sewer rate study recommends a modification to the current rate structure for restaurants that was adopted in 2007 to reflect recent industry practices for EDU calculation. This restaurant rate is similar to that used by SPMUD, Roseville, and Sacramento. Revised EDU's assigned to non-residential uses are shown below.

	<b>Proposed</b>	<b>Old</b>
❖ Restaurant	2.0 per 1,000 sq. ft.	2.5 per 1,000 sq. ft.
❖ Restaurant Take Out Only	1.7 per 1,000 sq. ft.	2.0 per 1,000 sq. ft.

This change reduces restaurant revenue received and, as a result, shifts some costs over to the other categories. For instance, single family homes rates are impacted by this change by about 25 cents per month.

#### **Monthly Sewer Use Charges**

The projected increase in sewer rates is dependent on the availability of reserves in the City's Sewer Enterprise Fund and how much of the reserves the City decides to use toward the upgrade project. As a means to minimize the initial increase to monthly sewer rates while maintaining sufficient reserves in the City's Sewer Fund, staff recommends using \$5.1 million of the \$7.6 million currently held in reserves. The fund will maintain a \$1 million in operating reserves towards unanticipated capital requirements, higher-than-expected increases in operating costs and future regulatory permit requirements. The projected total increase to the City's sewer rates are \$5.63 per month per EDU making the sewer rates \$67.01 per month per EDU. The rate study recommends a five year rate schedule for fiscal year 2014/15 through fiscal year 2018-19 as shown in Attachment A.

**Capital Projects**

The projected increase in the sewer rates will fund the Oxidation Ditch Improvement Project and the City's contribution to the Regional Sewer Common Pipeline Project, as well as other on-going improvements to lift stations and collection system projects and operating expenses. The following chart shows the components of the projected monthly sewer rate and how the use of the recommended reserve funding affects the monthly sewer rate.

**Breakdown of Calculated Rate by Cost Component for FY 2014-15**

	FY 2014-15 Monthly Rate/EDU <u>Equivalent</u>
Operations & Maintenance	\$31.61
Existing Debt Service	\$10.39
General Reserve	\$2.17
Subtotal	\$44.16
Capital	
Depreciation/Capital Projects	\$17.46
Oxidation Ditch Project - Debt Service [1] [3]	\$6.44
Regional Pipeline Contribution - Debt Service [2] [3]	\$3.44
Subtotal	\$71.50
Reserve Fund Drawdown- Debt Service Equivalent [4]	(\$4.49)
Total	\$67.01
Total Estimated EDUs	6,849

[1] Assumed Project Cost - \$6.9M plus \$400K for other Capital Projects

[2] Assumed Project Cost - \$3.9M

[3] Assumes loan terms of 30 years and 5% interest rate

[4] Assumes Reserve Fund drawdown of \$5.1M

The Regional Sewer Common Pipeline Project contributes to \$3.44 per month, but collectively with the use of reserves and the other capital projects, the total rate is recommended to increase by \$5.63. The Regional Sewer Common Pipeline Project is not eligible for State Revolving Loan Fund monies as the State only funds whole projects and not portions of projects.

**Options for Low Income Individuals**

State law (Proposition 218) requires each person's rates to be proportionate to the cost of serving them, so it is not currently legally feasible to offer discounted rates to fixed income customers. For the City to fund a discount for low-income individuals the City has the following options:

- 1) Obtain 2/3 voter approval of the practice, treating the portion of rates which funds the subsidy as a special tax; or
- 2) Fund it from general fund or other discretionary revenues; or
- 3) Don't do it

However, in light of the significant challenges faced by the City General Fund, or any other City source, option 2 is not viable and Staff would not recommend subsidies at this time. With respect to Option 1, a general tax can only be levied be considered at the time of a City Council election. In other words, the first consideration would be in November 2014. Given the need to meet all the necessary election code deadlines, the City Council would need to give staff direction no later than June 2, 2014.

### **Proposition 218 Process**

State law (Proposition 218) requires that each property owner that is receiving sewer service from the City be noticed 45 days prior to the public hearing. A draft notice is attached to the staff report as Attachment B. The notice will be mailed to all property owners that are connected to City Sewer. The schedule for adoption of the Sewer Rate Study and implementation of the Sewer Service Charges is as follows:

April 28, 2014 – Introduction of Sewer Rate Study Update

April 29, 2014 – Mail Public Notice to Sewer Customers

June 23, 2014 – Public Hearing and Sewer Rate Adoption

June 23, 2014 – Public Hearing to Place Sewer Service use Charges on County of Placer Tax Rolls

### **Enterprise Fund**

The Sewer Fund is an enterprise fund in the City's Annual Budget. An enterprise fund is a fund established to account for operations that are financed and operated in a manner similar to private business enterprises, where the intent of the governing body is that the costs of providing goods and services to the general public on a continuing basis be financed or recovered primarily through user charges.

### **Alternatives Available to Council; Implications of Alternatives**

1. Proceed with the Staff Recommendation - Scenario 1 – Most Prudent Monthly Rate: Assumes \$5.1M in Reserve Drawdown, \$6.1M in bond financing, defers a portion of the capital projects to collection system until 2016 or later, revises the EDU for restaurants, provides for \$175,000 in additional operational costs = \$5.63/month increase
2. Scenario 2 – Lowest Possible Rate: Assumes approximately \$5.3M in Reserve Drawdown, Shifts or defers capital improvement program, provides for \$175,000 in additional operational costs, no change in restaurant EDUs = \$5.49/month increase
3. Scenario 3 – Least Risk Rate: Assumes \$5.1 M in Reserve Drawdown, Capital Improvements programmed fully, provides for \$175,000 in additional operational costs, no change to Restaurant EDU = \$7.62/month increase.
4. Direct staff to continue with Staff Recommendation, but in addition, return to Council prior to July 2015 with costs associated with changing the methodology of billing sewer to consumption based.

5. Do not proceed with staff recommendation and provide specific direction the Interim City Manager how to proceed in funding the wastewater operation sans a dedicated revenue source.

**Fiscal Impact**

At the point of approval, the Sewer Rate will fund the Capital and Operational needs for the Sewer Fund over the next 5 years. The rate, if approved will fund approximately \$3.0 million in annual operating costs and \$3.0 million annually in capital costs including depreciation and existing debt and estimated future debt service, adjusted for inflation until 2018/19. After 2018/19 no further rate increases are scheduled and any future rate increases will require the City Council to undertake an updated rate study. The recommended increases to the sewer use charges are necessary to provide funding for such improvements as the Oxidation Ditch Improvement Project, the City's contribution to the Regional Sewer Common Pipeline Project, as well as other on-going improvements to lift stations and collection system projects, annual operating costs and ongoing future capital requirements. Absent increases to the use charges and connection fees, the City would be unable to perform necessary facility improvements, ultimately exposing the City to financial sanctions. Additionally, existing Sewer Fund reserves will be eroded by ongoing operating and capital costs, potentially rendering the Sewer Fund insolvent.

***Attachments:***

***Attachment A: Draft Proposition 218 Notice***

***Attachment B: Draft 2014 Sewer Rate Study Update***

***Attachment C: 2007 Sewer Rate Study***



# SPECIAL NOTICE

## A Special Legal Notice in Conformance with Proposition 218

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**ON JUNE 23, 2014 AT 6:00 P.M. IN THE CITY COUNCIL CHAMBERS AT 1225 LINCOLN WAY, AUBURN, CA 95603 THE CITY COUNCIL WILL HOLD A PUBLIC HEARING ON SEWER RATE INCREASES**

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### **Introduction**

The City of Auburn is proposing to increase sewer rates to maintain, repair and upgrade the sewer system needed for proper operations and regulatory compliance, and to meet operational and capital requirements. The rate increase, proposed to be a five year rate schedule is depicted in this notice for your reference.

This Notice of Public Hearing provides information regarding proposed rate adjustments to property owners served by the City of Auburn pursuant to the requirements of Proposition 218. The proposed rate adjustments will be presented to the City Council for adoption on June 23, 2014 at 6:00 p.m. in the City Council Chambers. This Notice also provides information on how rates are calculated, the reasons for the required rate adjustments, and how customers can file a protest against the proposed rate adjustments.

The City hired an independent consulting firm (G Aronow Consulting) to provide a comprehensive rate analysis that provides sufficient revenue to meet operating and capital improvement needs for the sewer utility.

### **Background**

The City's sewer systems are operated in conformance with Federal, State and Local regulations and permits. To meet current and anticipated regulatory requirements the City's sewer infrastructure must be upgraded and funds established to replace or repair assets used in providing these essential services in a safe, healthy and reliable manner.

Sewer rates are the primary source of revenue to operate the City's sewer systems; reliance on General Fund subsidies is discouraged. These rates generate the revenue to operate the systems and invest in necessary upgrades. The City last conducted a sewer rate study in 2007. The proposed increases are necessary to pay for (i) new state and federal regulatory requirements for the protection of the environment, (ii) repair and replacement of aging sewer lines and treatment plant improvements, (iii) purchase of capacity in the Regional Sewer Common Pipeline Project and (iv) inflation since 2013.

### **CAPITAL PROJECTS**

The following are the main projects that the City will be completing over the next five years: Regional Sewer Common Pipeline Project, New Oxidation Ditch at the Wastewater Treatment Plant, Lift Station Upgrades and Sewer Collection System upgrades.

### **SEWER SERVICE CHARGES**

The proposed sewer service charges are for fiscal year 2014-15 and further increases are proposed for each year through 2018-19. The following are the basic rates for FY 2014-15 for residential customers who do not require a lift station:

	Proposed Monthly Charge
Single Family Home (No Lift Station)	\$67.01
Duplex/Triplex/Condo (Per Dwelling Unit)	\$51.60
Multiple Dwelling (Apartments (Per Dwelling Unit)	\$47.58

In Fiscal Year 2015-16 and future years, the City Council may increase the proposed rates for inflation by the change in the Consumer Price Index, but capped at 5% per year.

City of Auburn  
Sewer Enterprise Fund  
Current vs. Calculated Rate

		EDU	Current	Calculated Rates				
		Factor	Rate	2014-15	2015-16	2016-17	2017-18	2018-19
<b>Residential</b>								
Single Family	per unit	1.00	\$ 61.38	\$ 67.01	\$ 69.81	\$ 72.56	\$ 75.49	\$ 78.62
Single Family w/ 1 Sewer Lift Station	per unit	1.22	\$ 74.88	\$ 81.75	\$ 85.16	\$ 88.52	\$ 92.09	\$ 95.91
Single Family w/2 Sewer Lift Stations	per unit	1.43	\$ 87.77	\$ 95.83	\$ 99.83	\$ 103.75	\$ 107.95	\$ 112.42
Duplex/Triplex/Condo/Townhome	per unit	0.77	\$ 47.26	\$ 51.60	\$ 53.75	\$ 55.87	\$ 58.12	\$ 60.53
Duplex/Triplex/Condo/Townhome w/ 1 Sewer Lift Station	per unit	0.99	\$ 60.77	\$ 66.35	\$ 69.12	\$ 71.84	\$ 74.74	\$ 77.84
Duplex/Triplex/Condo/Townhome w/ 2 Sewer Lift Station	per unit	1.20	\$ 73.66	\$ 80.42	\$ 83.78	\$ 87.07	\$ 90.59	\$ 94.35
Multiple Dwelling	per unit	0.71	\$ 43.58	\$ 47.58	\$ 49.57	\$ 51.52	\$ 53.60	\$ 55.82
Multiple Dwelling w/ 1 Sewer Lift Station	per unit	0.99	\$ 60.77	\$ 66.35	\$ 69.12	\$ 71.84	\$ 74.74	\$ 77.84
Single Family w/ CDBG Reduction*	per unit	0.79	\$ 48.38	\$ 52.82	\$ 55.02	\$ 57.19	\$ 59.50	\$ 61.97
Single Family w/ 1 Sewer Lift Station w/ CDBG Reduction*	per unit	1.01	\$ 61.88	\$ 67.56	\$ 70.38	\$ 73.15	\$ 76.10	\$ 79.26
Single Family w/ 2 Sewer Lift Station w/ CDBG Reduction*	per unit	1.22	\$ 74.77	\$ 81.63	\$ 85.04	\$ 88.39	\$ 91.96	\$ 95.77
Duplex/Triplex/Condo/Townhome w/ CDBG Reduction*	per unit	0.56	\$ 34.26	\$ 37.41	\$ 38.97	\$ 40.50	\$ 42.14	\$ 43.88
Single Family w/o CDBG & w/ CDBG Reduction*	per unit	1.79	\$ 109.76	\$ 119.84	\$ 124.84	\$ 129.75	\$ 134.99	\$ 140.59
Multiple Dwelling w/ CDBG Reduction*	per unit	0.50	\$ 30.58	\$ 33.39	\$ 34.78	\$ 36.15	\$ 37.61	\$ 39.17
*Properties receive a \$13/month reduction from previously received Community Development Block Grant (CDBG) funds. Current program funding ends in FY 2019/2020.								
<b>Non-Residential</b>								
Auto Dealership	per 1,000 SF	0.20	\$ 12.28	\$ 13.40	\$ 13.96	\$ 14.51	\$ 15.10	\$ 15.72
Bank/Financial Institution	per 1,000 SF	0.30	\$ 18.41	\$ 20.10	\$ 20.94	\$ 21.77	\$ 22.65	\$ 23.59
Bakery	per 1,000 SF	1.70	\$ 104.35	\$ 113.92	\$ 118.68	\$ 123.35	\$ 128.33	\$ 133.65
Bar	per 1,000 SF	0.70	\$ 42.97	\$ 46.91	\$ 48.87	\$ 50.79	\$ 52.84	\$ 55.03
Dry Cleaner	per 1,000 SF	1.70	\$ 104.35	\$ 113.92	\$ 118.68	\$ 123.35	\$ 128.33	\$ 133.65
Hall, Lodge, Auditorium	per 1,000 SF	0.30	\$ 18.41	\$ 20.10	\$ 20.94	\$ 21.77	\$ 22.65	\$ 23.59
Health Studio, Gym	per 1,000 SF	0.30	\$ 18.41	\$ 20.10	\$ 20.94	\$ 21.77	\$ 22.65	\$ 23.59
Market w/ Disposal Unit	per 1,000 SF	1.00	\$ 61.38	\$ 67.10	\$ 69.81	\$ 72.56	\$ 75.49	\$ 78.62
Market w/o Disposal Unit	per 1,000 SF	0.20	\$ 12.28	\$ 13.40	\$ 13.96	\$ 14.51	\$ 15.10	\$ 15.72
Medical/Dental Office	per 1,000 SF	0.40	\$ 24.55	\$ 26.81	\$ 27.92	\$ 29.02	\$ 30.20	\$ 31.45
Business Office	per 1,000 SF	0.20	\$ 12.28	\$ 13.40	\$ 13.96	\$ 14.51	\$ 15.10	\$ 15.72
Place of Worship	per 1,000 SF	0.20	\$ 12.28	\$ 13.40	\$ 13.96	\$ 14.51	\$ 15.10	\$ 15.72
Public Agency	per 1,000 SF	0.60	\$ 36.83	\$ 40.21	\$ 41.89	\$ 43.53	\$ 45.29	\$ 47.17
Mortuary	per Slumber Room	1.30	\$ 79.79	\$ 87.12	\$ 90.75	\$ 94.32	\$ 98.14	\$ 102.21
Restaurant	per 1,000 SF	2.00	\$ 153.45	\$ 134.03	\$ 139.62	\$ 145.12	\$ 150.98	\$ 157.24
Restaurant, Take Out Only	per 1,000 SF	1.70	\$ 122.76	\$ 113.92	\$ 118.68	\$ 123.35	\$ 128.33	\$ 133.65
Retail	per 1,000 SF	0.20	\$ 12.28	\$ 13.40	\$ 13.96	\$ 14.51	\$ 15.10	\$ 15.72
Warehouse	per 1,000 SF	0.10	\$ 6.14	\$ 6.70	\$ 6.98	\$ 7.26	\$ 7.55	\$ 7.86
Used Car Lot	per 10 fixtures	0.20	\$ 12.28	\$ 13.40	\$ 13.96	\$ 14.51	\$ 15.10	\$ 15.72
Car Wash	per Stall	0.70	\$ 42.97	\$ 46.91	\$ 48.87	\$ 50.79	\$ 52.84	\$ 55.03
Barber/Beauty Shop	per chair	0.20	\$ 12.28	\$ 13.40	\$ 13.96	\$ 14.51	\$ 15.10	\$ 15.72
Hotel, Motel	per sleeping room	0.30	\$ 18.41	\$ 20.10	\$ 20.94	\$ 21.77	\$ 22.65	\$ 23.59
Self Service Laundry	per machine	0.50	\$ 30.69	\$ 33.51	\$ 34.91	\$ 36.28	\$ 37.74	\$ 39.31
Garage	per Bay	0.10	\$ 6.14	\$ 6.70	\$ 6.98	\$ 7.26	\$ 7.55	\$ 7.86
Rest Home/Boarding House	per Bed	0.30	\$ 18.41	\$ 20.10	\$ 20.94	\$ 21.77	\$ 22.65	\$ 23.59
School	Per 100 Students	1.00	\$ 61.38	\$ 67.10	\$ 69.81	\$ 72.56	\$ 75.49	\$ 78.62
Service Station	Per Pump	0.10	\$ 6.14	\$ 6.70	\$ 6.98	\$ 7.26	\$ 7.55	\$ 7.86
Theatre	Per 100 Seats	0.30	\$ 18.41	\$ 20.10	\$ 20.94	\$ 21.77	\$ 22.65	\$ 23.59
Brewery	per 1,000 SF	4.80	\$ 294.62	\$ 321.67	\$ 335.09	\$ 348.28	\$ 362.35	\$ 377.38

## Action

In compliance with Proposition 218, the City of Auburn is hereby notifying all affected property owners and customers of the proposed sewer rate increase effective July 1, 2014, as follows:

- ✓ Affected property owners and other customers are notified by mail about the proposed rate increase. This notice outlines the public protest process (see below) and publishes the public hearing date and time.
- ✓ If written protests are presented by a majority of affected property owners prior to the close of the public hearing, the proposed rate increase will be rejected.
- ✓ This notice provides information relating to the proposed rate increase.

## Process

If you wish to oppose the proposed sewer rate increase, your protest must be submitted in writing to be considered, even if you plan to attend the public hearing. If written protests are submitted by a majority of affected property owners, the proposed sewer rate increase will not be imposed. Written protest can be submitted to the City Council prior to the close of the public hearing. Written protests must contain a description of the property, including the parcel number. Please indicate you are protesting and send your written protest to: City Clerk, City of Auburn, 1225 Lincoln Way, Auburn, CA 95603.

Please note that the City of Auburn requires that rate increase protests be submitted in writing, and that **email protests will not be accepted**. If you have any questions about this notice, please call Bernie Schroeder, Public Works Director, City of Auburn at 530-823-4211 x 144.





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## Memorandum

**To:** Bernie Schroeder, City of Auburn  
Megan Siren, City of Auburn

**From:** Georgette Aronow

**CC:** Dan Rich, Nexgen

**Date:** April 7, 2014, revised April 24, 2014

**RE:** City of Auburn Sewer Rate Update, DRAFT

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This memo provides an overview of the updated sewer rate analysis for the City of Auburn that was last done in April 2007. With this current analysis, rates have been updated to reflect current assumptions, detailed below, and have been projected for the next five years. The following describes the major assumptions and updates:

- ❑ Updated revenue and expense data for the Sewer Enterprise Fund. The budgeted 2013-14 sewer expenses are used as the baseline for projecting costs over the next five years.
- ❑ Updated customer account information (number of customers and billing units).
- ❑ Updated schedule of capital improvement projects (CIP) over the next ten years including two major projects, the monetary contribution toward the Regional Pipeline project and the Oxidation Ditch project.
- ❑ Assumptions regarding how the City will likely fund the major CIP projects (contribution to Regional Pipeline and Oxidation Ditch improvements) which include a combination of financing/loans and pay-as-you-go (PAYG) funding.

The following describes the key tables and rate calculations.

### **Table 1: Rate Summary – Current vs. Calculated Rates**

Table 1 summarizes the calculated rates and also provides the current rates for the customer categories. Rates are projected through 2018-19.

Capital project costs, i.e., the Regional Contribution and Oxidation Ditch projects, which are scheduled to occur in the next two years, are largely driving the need for rate increases.

**Table 2: Historical Summary of Revenues and Expenses**

Table 2 shows the historical sewer fund revenues and expenses through 2012-13. The budgeted revenues and expenses are shown for 2013-14. The budgeted 2013-14 expenses are used as the basis from which future year expenses are projected.

**Table 3: Summary of Wastewater User Characteristics**

The wastewater customers and user characteristics are summarized in Table 3. The City bills its sewer service charge annually with the property tax assessment rolls. The City charges residential parcels based on the number of units associated with each parcel. However, the basis for charge for non-residential uses varies from a per square foot (sqft) basis, to students, to chairs, etc. Customer accounts and units were updated based on current information.

The wastewater characteristics are based on previous rate studies, but were reviewed to assess whether they continue to reflect industry standards for flow and strength, as incorporated by the EDU Factor shown on Table 3. All but the Restaurant and Restaurant Take Out EDU Factors were found to be equitable representations for wastewater flow and strength. Restaurants and Take Out Restaurants' EDU factors were lowered from 2.5 and 2.0 to 2.0 and 1.7 respectively. These reduced characteristics are more consistent with industry standards for restaurant uses today.

It should be clarified that in some cases, the EDU factor not only represents the flow/strength factors, but also may represent additional allocations, such as in the case of a residential parcel associated with a lift station(s) or where there is a CDBG designation.

**Table 4: Summary of Projected Expenses**

Table 4 summarizes the projected expenses on an annual basis through 2018-19. The annual cost adjustment factors are also noted at the bottom of the table.

Salaries and Benefits are assumed to increase by approximately 5% a year and all other operating costs are assumed to increase by approximately 3% a year. However, in FY14-15, an additional \$175,000 in salaries and benefits is assumed to fill positions that were previously eliminated due to lack of funding, but that are deemed necessary.

The capital project expenses reflect significant costs over the next three to four years, due to the Regional Sewer contribution and the Oxidation Ditch project as well as ongoing annual capital project improvements. The projected annual capital expenses are detailed in the appendix, Table A-1. It is assumed that these capital project expenses will be funded by a combination of current capital reserves/set-asides, rate increases, and financing/loan.

**Table 5: Project Loan/Bond Sizing and Debt Service**

The City does not have the capacity to fully fund the two major capital projects out of reserves as they total a combined \$10.8 million, plus fund the nearly \$1.5 to \$2 million in annual capital projects. The City has approximately \$5.1 million in capital reserves to apply towards these projects. To pay

the remaining solely via rates greatly increases monthly rates, so it is assumed that the City will borrow money or finance a portion of the project costs for the major improvements.

Table 5 calculates the annual debt service for an assumed \$6.1 million loan. Conventional bond terms are assumed, however, the City may pursue CWSRF funding for the Oxidation Ditch Project. Therefore, the loan terms assumed in the rate analysis may be conservative, but prudent since all options are still currently being explored.

***Table 6: Summary of Annual Revenue Requirement through FY 2018-19***

Table 6 brings forward the projected annual expenses from Table 4 and includes offsetting revenues for a projection of the total annual revenue requirement necessary from annual sewer rate revenues. Offsetting revenues are based on other non-sales related revenue from the current budget year. One of these line items is Sewer Connection Fee revenue of \$36,000, representing approximately 11 new connections a year.

***Table 7: Projected Cash Flow***

Table 7 shows the projected cash flow for the 5 year period FY 2014-15 through FY 2018-19. The revenues, including the projected sewer rate revenues, are shown at the top. Below the total revenues, the projected expenses are shown. Net revenue, before debt service and depreciation/facility replacement are shown next.

The debt service coverage ratio is calculated by dividing the net revenues by the estimated debt service. Coverage ratios are relatively high at approximately 1.5x debt service.

***Table 8: Capital Improvement Project (CIP) Pro Forma Cash Flow***

Table 8 shows a projected cash flow for capital improvement fund. Revenues include transfers from the operating fund (Table 7) to the capital fund for depreciation and for capital projects, interest income, as well as bond/loan proceeds in years 2 and 3.

Expenses are based on the City's ten year projection of capital projects shown in Table A-1.

Beginning and ending balances are shown at the bottom of the table. As mentioned above, it is assumed that approximately \$5.1 million of current reserves (beginning balance) is applied toward the expenses over the first few years. After year 5, FY 2018-19, it is projected that the City will begin to once again accumulate capital reserves that can be applied to future major capital improvements to the sewer system.

***Table 9: Projected Costs and Distribution between Collection and Treatment System***

Table 9 provides the allocation of the projected costs (from Table 6) between collection and treatment. This calculation is repeated for each of the fiscal years through 2018-19. However, only the 2014-15 fiscal year is shown.

Table 9 also shows the cost adjustment factors used to project future costs. Salaries and benefits are projected to increase by 5% per year, all other costs, excluding debt service which are typically fixed or have a set schedule, are projected to increase by 3% per year.

CIP expenses are an exception however. The FY 2014-15 CIP cost allocation in rates is assumed to be \$970,000, which is then escalated by 12% for FY15-16 and 10% per year thereafter. The cost allocation for FY 2014-15 is less than the projected costs for that year, as shown in Table 8 and based on Table A-1, under expenses. A lower starting assumption for CIP costs in the revenue requirement was used to minimize the rate impacts in the earlier years of the projection period. It is assumed that the additional capital costs will be funded through the loan/financing as opposed to pay-as-you go funding.

#### **Table 10: Unit Cost Determination**

The distributed annual revenue requirement from Table 9 is brought forward into Table 10. These costs are allocated to flow and inflow and infiltration (I&I). These unit allocations are the same assumptions that were used in the previous sewer rate analysis.

The projected costs are multiplied by the flow and I&I unit allocations and then divided by the total annual capacity amounts from Table 3. The result is a unit cost per million gallons of flow and I&I.

#### **Table 11: Allocation of Costs to Flow, BOD, and SS by Customer Category**

In Table 11, the unit costs, calculated in Table 10, are used to allocate costs back to customer categories based on the customer group's estimated flow. For example, for the single-family customer group, the collection (flow) unit cost of \$1,585.01 is multiplied times 181.63 MG/yr of flow, resulting in \$287,881 costs being allocated to this customer group for this category. The total cost allocated to single-family residential users is estimated at \$2.1 million approximately. This calculation is repeated for each cost type and customer type, so that the total costs for the fiscal year are fully allocated.

#### **Table 12: Detailed Sewer Rate Calculation**

Table 12 shows the calculation of the monthly sewer rate for residential and non-residential customers. To calculate the rates, the allocated cost from Table 11 is brought forward and divided by the number of billing units to get the annual cost allocated. The annual cost is divided by 12 to determine the monthly charge. The basis of the charge whether residential unit, square feet, beds, etc. is also shown.

#### **Appendix A: Sewer Program Projects**

Table A-1 shows the historical and projected capital improvement projects for the sewer fund through FY 2023-24. The project costs total approximately \$28.7 million from FY 2013-14 through FY 2023-24.

Table 1  
City of Auburn  
Sewer Enterprise Fund  
Rate Summary - Current vs. Calculated Rates

DRAFT

		Sewer Unit	Current Rate	Calculated Rates					Avg. Annual % Increase
				2014-15	2015-16	2016-17	2017-18	2018-19	
<b>Residential</b>									
Single Family	per Unit	1.00	\$61.38	\$67.01	\$69.81	\$72.56	\$75.49	\$78.62	4.04%
Multiple Dwelling	per Unit	0.71	\$43.58	\$47.58	\$49.57	\$51.52	\$53.60	\$55.82	4.04%
Duplex / Triplex / Condo / Townhome	per Unit	0.77	\$47.26	\$51.60	\$53.75	\$55.87	\$58.12	\$60.53	4.04%
Duplex/Triplex/Condo/Townhome W/2 Lift Station	per Unit	1.20	\$73.66	\$80.42	\$83.78	\$87.07	\$90.59	\$94.35	4.04%
Duplex/Triplex/Condo/Townhome W/1 Lift Stations	per Unit	0.99	\$60.77	\$66.35	\$69.12	\$71.84	\$74.74	\$77.84	4.04%
Multiple Dwelling W/ Lift Station	per Unit	0.99	\$60.77	\$66.35	\$69.12	\$71.84	\$74.74	\$77.84	4.04%
CDBG \$13.00/Mo. Reduction	per Unit	0.79	\$48.38	\$52.82	\$55.02	\$57.19	\$59.50	\$61.97	4.04%
CDBG - Duplex /Triplex/Condo/ Townhome	per Unit	0.56	\$34.26	\$37.41	\$38.97	\$40.50	\$42.14	\$43.88	4.04%
CDBG 1SFD W/DISC 1SFD W/O DISC	per Unit	1.79	\$109.76	\$119.84	\$124.84	\$129.75	\$134.99	\$140.59	4.04%
CDBG \$13.00-MO W/ 2 Lift Stations	per Unit	1.22	\$74.77	\$81.63	\$85.04	\$88.39	\$91.96	\$95.77	4.04%
CDBG \$13.00-MO W/Lift Station	per Unit	1.01	\$61.88	\$67.56	\$70.38	\$73.15	\$76.10	\$79.26	4.04%
CDBG 1 APT W/DISC	per Unit	0.50	\$30.58	\$33.39	\$34.78	\$36.15	\$37.61	\$39.17	4.04%
SFD W/2 Lift Stations	per Unit	1.43	\$87.77	\$95.83	\$99.83	\$103.75	\$107.95	\$112.42	4.04%
SFD with Sewer Lift Station	per Unit	1.22	\$74.88	\$81.75	\$85.16	\$88.52	\$92.09	\$95.91	4.04%
<b>Non-Residential</b>									
Auto Dealership	per 1,000 SF	0.20	\$12.28	\$13.40	\$13.96	\$14.51	\$15.10	\$15.72	4.04%
Bank/Financial Inst.	per 1,000 SF	0.30	\$18.41	\$20.10	\$20.94	\$21.77	\$22.65	\$23.59	4.04%
Bakery	per 1,000 SF	1.70	\$104.35	\$113.92	\$118.68	\$123.35	\$128.33	\$133.65	4.04%
Bar	per 1,000 SF	0.70	\$42.97	\$46.91	\$48.87	\$50.79	\$52.84	\$55.03	4.04%
Dry Cleaner	per 1,000 SF	1.70	\$104.35	\$113.92	\$118.68	\$123.35	\$128.33	\$133.65	4.04%
Hall, Lodge, Auditorium	per 1,000 SF	0.30	\$18.41	\$20.10	\$20.94	\$21.77	\$22.65	\$23.59	4.04%
Health Studio, Gym	per 1,000 SF	0.30	\$18.41	\$20.10	\$20.94	\$21.77	\$22.65	\$23.59	4.04%
Market w/Disposal Unit	per 1,000 SF	1.00	\$61.38	\$67.01	\$69.81	\$72.56	\$75.49	\$78.62	4.04%
Market w/o Disposal Unit	per 1,000 SF	0.20	\$12.28	\$13.40	\$13.96	\$14.51	\$15.10	\$15.72	4.04%
Medical/Dental Office	per 1,000 SF	0.40	\$24.55	\$26.81	\$27.92	\$29.02	\$30.20	\$31.45	4.04%
Business Office	per 1,000 SF	0.20	\$12.28	\$13.40	\$13.96	\$14.51	\$15.10	\$15.72	4.04%
Place of Workshop	per 1,000 SF	0.20	\$12.28	\$13.40	\$13.96	\$14.51	\$15.10	\$15.72	4.04%
Public Agency	per 1,000 SF	0.60	\$36.83	\$40.21	\$41.89	\$43.53	\$45.29	\$47.17	4.04%
Mortuary	per Slumber Room	1.30	\$79.79	\$87.12	\$90.75	\$94.32	\$98.14	\$102.21	4.04%
Restaurant	per 1,000 SF	2.00	\$153.45	\$134.03	\$139.62	\$145.12	\$150.98	\$157.24	0.48%
Restaurant, Take-out Only	per 1,000 SF	1.70	\$122.76	\$113.92	\$118.68	\$123.35	\$128.33	\$133.65	1.58%
Retail	per 1,000 SF	0.20	\$12.28	\$13.40	\$13.96	\$14.51	\$15.10	\$15.72	4.04%
Warehouse	per 1,000 SF	0.10	\$6.14	\$6.70	\$6.98	\$7.26	\$7.55	\$7.86	4.04%
Used Car Lot	per 10 fixtures	0.20	\$12.28	\$13.40	\$13.96	\$14.51	\$15.10	\$15.72	4.04%
Car Wash	per Stall	0.70	\$42.97	\$46.91	\$48.87	\$50.79	\$52.84	\$55.03	4.04%
Barber/Beauty Shop	per Chair	0.20	\$12.28	\$13.40	\$13.96	\$14.51	\$15.10	\$15.72	4.04%
Hotel, Motel	per Sleeping Room	0.30	\$18.41	\$20.10	\$20.94	\$21.77	\$22.65	\$23.59	4.04%
Self Service Laundry	per Machine	0.50	\$30.69	\$33.51	\$34.91	\$36.28	\$37.74	\$39.31	4.04%
Garage	per Bay	0.10	\$6.14	\$6.70	\$6.98	\$7.26	\$7.55	\$7.86	4.04%
Rest Home/Boarding House	per Bed	0.30	\$18.41	\$20.10	\$20.94	\$21.77	\$22.65	\$23.59	4.04%
School	per 100 Students	1.00	\$61.38	\$67.01	\$69.81	\$72.56	\$75.49	\$78.62	4.04%
Service Station	per Pump	0.10	\$6.14	\$6.70	\$6.98	\$7.26	\$7.55	\$7.86	4.04%
Theatre	per 100 Seats	0.30	\$18.41	\$20.10	\$20.94	\$21.77	\$22.65	\$23.59	4.04%
Brewery	per 1,000 SF	4.80	\$294.62	\$321.67	\$335.09	\$348.28	\$362.35	\$377.38	4.04%
UPPR - Multi User	per EDU	1.00	\$61.38	\$67.01	\$69.81	\$72.56	\$75.49	\$78.62	4.04%

Table 2  
City of Auburn  
Sewer Enterprise Fund  
Summary of Revenues and Expenses

DRAFT

	Fiscal Year Ended June 30				Budgeted 2014	Avg. Annual % Change 2010-2014
	2010	Actual 2011	2012	2013		
REVENUES						
Sewer Service Charges	\$4,606,461	\$4,581,146	\$4,802,110	\$5,019,446	\$5,069,872	2.43%
Sewer Connection Fees	\$29,081	\$54,707	\$97,476	\$369,225	\$36,000	5.48%
Interest Income	\$84,169	\$88,527	\$97,476	\$57,493	\$75,000	(2.84%)
Other Revenues		\$1,050	\$1,553		\$0	
Debt Proceeds					\$0	
Subtotal Revenues	\$4,719,711	\$4,725,430	\$4,998,614	\$5,446,163	\$5,180,872	2.36%
EXPENSES						
Operating Expenses						
Salaries and benefits	\$223,404	\$262,793	\$347,932	\$386,561	\$379,596	14.17%
Services and Supplies	\$3,260,787	\$2,563,645	\$2,498,331	\$2,481,746	\$1,924,000	(12.36%)
Maintenance					\$41,000	
Capital Projects	\$387,947	\$402,670	\$978,732	\$1,054,472	\$1,525,000	40.81%
Depreciation	\$374,797	\$430,764	\$432,483	\$451,257	\$451,257	4.75%
Subtotal Expenses	\$4,246,936	\$3,659,872	\$4,257,477	\$4,374,035	\$4,320,853	0.43%
Net Operating Revenues	\$472,775	\$1,065,557	\$741,137	\$1,072,128	\$860,019	16.14%
Debt Service						
Current Debt Service	\$155,731	\$47,040	\$65,583	\$725,499	\$853,734	53.02%
Debt Coverage Ratio	3.04	22.65	11.30	1.48	1.01	
Subtotal Expenses	\$4,402,667	\$3,706,912	\$4,323,059	\$5,099,534	\$5,174,587	4.12%
Net Op. Rev after D/S	\$317,044	\$1,018,517	\$675,554	\$346,629	\$6,285	

"hist\_budget"

Source: City of Auburn

Table 3  
City of Auburn  
Sewer Enterprise Fund  
Summary of Wastewater User Characteristics

DRAFT

Customer Category	Basis of Charge	Parcel Units/ Accounts	Billing Units	EDU FACTOR [1]	Wastewater Characteristics			Total Annual Capacity		
					ADWF/User GPD	BOD MG/L	SS MG/L	Flow MG	BOD Lbs/Year	SS Lbs/Year
		(A)			(B)	(C)	(D)	(K)=(E)x365	(L)=(F)x365	(M)=(G)x365
<b>Residential</b>										
Single Family	per Unit	2 644	2 661	1.00	187			181 63	-	-
Multiple Dwelling	per Unit	124	1 493	0.71	133			72 35	-	-
Duplex / Triplex / Condo / Townhome	per Unit	446	617	0.77	144			32 43	-	-
Duplex/Triplex/Condo/Townhome W/2 Lift Station	per Unit	31	31	1.20	224			2 54	-	-
Duplex/Triplex/Condo/Townhome W/1 Lift Stations	per Unit	23	23	0.99	185			1 55	-	-
Multiple Dwelling W/ Lift Station	per Unit	1	1	0.99	185			0 07	-	-
CDBG \$13 00/Mo. Reduction	per Unit	109	109	0.79	147			5 86	-	-
CDBG - Duplex /Triplex/Condo/ Townhome	per Unit	15	15	0.56	104			0 57	-	-
CDBG 1SFD W/DISC 1SFD W/O DISC	per Unit	1	1	1.79	334			0 12	-	-
CDBG \$13 00-MO W/ 2 Lift Stations	per Unit	2	2	1.22	228			0 17	-	-
CDBG \$13 00-MO W/Lift Station	per Unit	6	6	1.01	189			0 41	-	-
CDBG 1 APT W/DISC	per Unit	1	1	0.50	93			0 03	-	-
SFD W/2 Lift Stations	per Unit	393	393	1.43	267			38 36	-	-
SFD with Sewer Lift Station	per Unit	616	617	1.22	228			51 38	-	-
<b>Subtotal - Residential</b>		<b>4,412</b>	<b>5,970</b>					<b>387.47</b>	-	-
<b>Non-Residential</b>										
Auto Dealership	per 1,000 SF	2	3.85	0.20	37			0.05	-	-
Bank/Financial Inst.	per 1,000 SF	11	22.60	0.30	56			0.46	-	-
Bakery	per 1,000 SF	5	10.30	1.70	318			1.20	-	-
Bar	per 1,000 SF	10	8.61	0.70	131			0.41	-	-
Dry Cleaner	per 1,000 SF	3	13.94	1.70	318			1.62	-	-
Hall, Lodge, Auditorium	per 1,000 SF	8	11.56	0.30	56			0.24	-	-
Health Studio, Gym	per 1,000 SF	9	10.81	0.30	56			0.22	-	-
Market w/Disposal Unit	per 1,000 SF	3	37.40	1.00	187			2.55	-	-
Market w/o Disposal Unit	per 1,000 SF	2	5.22	0.20	37			0.07	-	-
Medical/Dental Office	per 1,000 SF	52	46.09	0.40	75			1.26	-	-
Business Office	per 1,000 SF	350	169.34	0.20	37			2.31	-	-
Place of Workshop	per 1,000 SF	21	41.31	0.20	37			0.56	-	-
Public Agency	per 1,000 SF	30	195.98	0.60	112			8.03	-	-
Mortuary	per Slumber Room	2	13.00	1.30	243			1.15	-	-
Restaurant	per 1,000 SF	52	272.48	2.00	374			37.20	-	-
Restaurant, Take-out Only	per 1,000 SF	8	19.11	1.70	318			2.22	-	-
Retail	per 1,000 SF	207	134.25	0.20	37			1.83	-	-
Warehouse	per 1,000 SF	25	12.86	0.10	19			0.09	-	-
Used Car Lot	per 10 fixtures	3	1.10	0.20	37			0.02	-	-
Car Wash	per Stall	1	2.80	0.70	131			0.13	-	-
Barber/Beauty Shop	per Chair	37	32.80	0.20	37			0.45	-	-
Hotel, Motel	per Sleeping Room	4	42.60	0.30	56			0.87	-	-
Self Service Laundry	per Machine	2	27.50	0.50	94			0.94	-	-
Garage	per Bay	27	11.80	0.10	19			0.08	-	-
Rest Home/Boarding House	per Bed	9	76.50	0.30	56			1.57	-	-
School	per 100 Students	7	29.15	1.00	187			1.99	-	-
Service Station	per Pump	8	4.40	0.10	19			0.03	-	-
Theatre	per 100 Seats	2	5.45	0.30	56			0.11	-	-
Brewery	per 1,000 SF	1	2.42	4.80	898			0.79	-	-
UPPR - Multi User			29.41	1.00	187			2.01	-	-
<b>Subtotal Non-Residential</b>		<b>901</b>	<b>1,295</b>					<b>70.46</b>	-	-
<b>SUBTOTAL</b>								<b>457.92</b>	-	-
Infiltration/Inflow								50.0		
<b>TOTAL</b>								<b>507.93</b>		

[1] The equivalent dwelling unit (EDU) factors reflect the relative use of all categories in relation to a single family unit (SFU = 1 EDU). The factors are multiplied times the flow for a SFU which is assumed to be 187 gallons per day to determine the wastewater flow for all other customer categories.

user characteristics

**Table 4**  
**City of Auburn**  
**Sewer Enterprise Fund**  
**Summary of Projected Expenses through 2018-19**

**DRAFT**

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
<b>Expenditures</b>						
Salaries and benefits	\$379,596	\$398,576	\$418,505	\$439,430	\$461,401	\$484,471
Additional Salaries and Benefits		\$175,000	\$183,750	\$192,938	\$202,584	\$212,714
Services and Supplies	\$1,924,000	\$1,981,720	\$2,041,172	\$2,102,407	\$2,165,479	\$2,230,443
Maintenance	\$41,000	\$42,230	\$43,497	\$44,802	\$46,146	\$47,530
Capital Projects	\$1,525,000	\$970,000	\$1,086,400	\$1,195,040	\$1,314,544	\$1,445,998
Depreciation	\$451,257	\$464,795	\$478,739	\$493,101	\$507,894	\$523,131
<b>Subtotal</b>	<b>\$4,320,853</b>	<b>\$4,032,321</b>	<b>\$4,252,062</b>	<b>\$4,467,717</b>	<b>\$4,698,049</b>	<b>\$4,944,288</b>
Current Debt Service	\$853,734	\$853,734	\$853,734	\$853,734	\$853,734	\$853,734
New Debt Service	\$0	\$442,000	\$442,000	\$442,000	\$442,000	\$442,000
<b>Subtotal</b>	<b>\$853,734</b>	<b>\$1,295,734</b>	<b>\$1,295,734</b>	<b>\$1,295,734</b>	<b>\$1,295,734</b>	<b>\$1,295,734</b>
General Reserve	\$173,000	\$178,190	\$183,536	\$189,042	\$194,713	\$200,554
<b>Total</b>	<b>\$5,347,587</b>	<b>\$5,506,245</b>	<b>\$5,708,749</b>	<b>\$5,927,875</b>	<b>\$6,161,645</b>	<b>\$6,411,277</b>
<b>Percent Increase</b>		3.0%	3.7%	3.8%	3.9%	4.1%



Table 5  
City of Auburn  
Sewer Enterprise Fund  
Project Loan/Bond Sizing and Debt Service

DRAFT

Item	Assumptions	Estimated Bond Sizing
		Local Project
		Oxidation Ditch/ Regional Project
<hr/>		
<b><u>Total Loan/Bonds</u></b>		
Total Estimated Project Costs		\$6,100,000
Proceeds		\$6,100,000
Capitalized Interest	0 Months	\$0
Issuance Costs	4.0%	\$244,000
Bond Reserve Fund		\$442,000
<b>Loan/Bond Size</b>		<b>\$6,786,000</b>
<i>Adjustment for Rounding</i>		<i>(\$3,000)</i>
<b>Total Loan/Bond Size</b>		<b>\$6,783,000</b>
<hr/>		
<b><u>Annual Costs</u></b>		
Estimated Gross Debt Service		\$441,244
<b><i>Estimated Gross Debt Service - Rounded</i></b>		<b><i>\$442,000</i></b>
<hr/>		
<b><u>Assumptions</u></b> <sup>[1]</sup>		
Interest Rate		5.00%
Term		30 Years
Bond Load Factor		1.1120

[1] Bond issuance assumptions are estimates only. Actual bond pricing will be determined based on market conditions at the time of bond issuance.

Table 6  
City of Auburn  
Sewer Enterprise Fund  
Summary of Annual Revenue Requirement through FY 2018-19

DRAFT

	Projected					
	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
	1	2	3	4	5	6
<b>Revenue Requirement</b>						
Salaries and benefits	\$379,596	\$398,576	\$418,505	\$439,430	\$461,401	\$484,471
Additional Salaries and Benefits	\$0	\$175,000	\$183,750	\$192,938	\$202,584	\$212,714
Services and Supplies	\$1,924,000	\$1,981,720	\$2,041,172	\$2,102,407	\$2,165,479	\$2,230,443
Maintenance	\$41,000	\$42,230	\$43,497	\$44,802	\$46,146	\$47,530
Capital Projects	\$1,525,000	\$970,000	\$1,086,400	\$1,195,040	\$1,314,544	\$1,445,998
Depreciation	\$451,257	\$464,795	\$478,739	\$493,101	\$507,894	\$523,131
<b>Subtotal</b>	<b>\$4,320,853</b>	<b>\$4,032,321</b>	<b>\$4,252,062</b>	<b>\$4,467,717</b>	<b>\$4,698,049</b>	<b>\$4,944,288</b>
Current Debt Service	\$853,734	\$853,734	\$853,734	\$853,734	\$853,734	\$853,734
New Debt Service	\$0	\$442,000	\$442,000	\$442,000	\$442,000	\$442,000
<b>Subtotal</b>	<b>\$853,734</b>	<b>\$1,295,734</b>	<b>\$1,295,734</b>	<b>\$1,295,734</b>	<b>\$1,295,734</b>	<b>\$1,295,734</b>
Plus General Reserve	\$173,000	\$178,190	\$183,536	\$189,042	\$194,713	\$200,554
<b>Subtotal Expenses</b>	<b>\$5,347,587</b>	<b>\$5,506,245</b>	<b>\$5,731,332</b>	<b>\$5,952,493</b>	<b>\$6,188,496</b>	<b>\$6,440,576</b>
<i>Less Revenues Met from Other Sources</i>						
Interest Income	(\$75,000)	(\$75,000)	(\$75,000)	(\$75,000)	(\$75,000)	(\$75,000)
Other Revenues	(\$36,000)	(\$36,000)	(\$36,000)	(\$36,000)	(\$36,000)	(\$36,000)
<b>Revenue Requirement</b>	<b>\$5,236,587</b>	<b>\$5,395,245</b>	<b>\$5,620,332</b>	<b>\$5,841,493</b>	<b>\$6,077,496</b>	<b>\$6,329,576</b>

Table 7  
City of Auburn  
Sewer Enterprise Fund  
Projected Cash Flow

DRAFT

	Inflation Assumption	Budget 2013-14	Projected				
			2014-15	2015-16	2016-17	2017-18	2018-19
<b>Revenues</b>							
Current Budgeted Sewer Sales		\$5,069,872	\$5,069,872	\$5,069,872	\$5,069,872	\$5,069,872	\$5,069,872
Additional Revenue Required							
Year	Effective Months						
2014-15	12		\$325,373	\$325,373	\$325,373	\$325,373	\$325,373
2015-16	12			\$225,087	\$225,087	\$225,087	\$225,087
2016-17	12				\$221,161	\$221,161	\$221,161
2017-18	12						\$488,084
2018-19	12						
Total		\$5,069,872	\$5,395,245	\$5,620,332	\$5,841,493	\$6,077,496	\$6,329,576
<b>Other Revenues</b>							
Sewer Connection Charges [1]		\$36,000	\$36,000	\$36,000	\$36,000	\$36,000	\$36,000
Interest Income		\$75,000	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000
Other Revenues		\$0	\$0	\$0	\$0	\$0	\$0
Subtotal		\$111,000	\$111,000	\$111,000	\$111,000	\$111,000	\$111,000
Subtotal Revenues		\$5,180,872	\$5,506,245	\$5,731,332	\$5,952,493	\$6,188,496	\$6,440,576
<b>Expenses</b>							
Salaries and Benefits	5.0%	\$379,596	\$398,576	\$418,505	\$439,430	\$461,401	\$484,471
Additional Salaries and Benefits	5.0%	\$0	\$175,000	\$183,750	\$192,938	\$202,584	\$212,714
Services and Supplies	3.0%	\$1,924,000	\$1,981,720	\$2,041,172	\$2,102,407	\$2,165,479	\$2,230,443
Maintenance	3.0%	\$41,000	\$42,230	\$43,497	\$44,802	\$46,146	\$47,530
Capital Projects		\$1,525,000	\$970,000	\$1,086,400	\$1,195,040	\$1,314,544	\$1,445,998
Subtotal Expenses		\$3,869,596	\$3,567,526	\$3,773,323	\$3,974,616	\$4,190,154	\$4,421,157
Net Revenue Before D/S & Depreciation		\$1,311,276	\$1,938,719	\$1,958,009	\$1,977,877	\$1,998,341	\$2,019,419
Depreciation	3.0%	\$451,257	\$464,795	\$478,739	\$493,101	\$507,894	\$523,131
Debt Service							
Current Debt Service		\$853,734	\$853,734	\$853,734	\$853,734	\$853,734	\$853,734
Add'l Debt Service			\$442,000	\$442,000	\$442,000	\$442,000	\$442,000
Total Debt Service		\$853,734	\$1,295,734	\$1,295,734	\$1,295,734	\$1,295,734	\$1,295,734
Debt Service Coverage		1.54	1.50	1.51	1.53	1.54	1.56
Total Expenses		\$5,174,587	\$5,328,055	\$5,547,796	\$5,763,451	\$5,993,783	\$6,240,022
Net Revenue After D/S		\$6,285	\$178,190	\$183,536	\$189,042	\$194,713	\$200,554
Net Revenue as % of Total Expenses			3.3%	3.3%	3.3%	3.2%	3.2%
<hr/>							
Beginning Operating Balance [2]		\$1,000,000	\$1,006,285	\$1,184,475	\$1,368,010	\$1,557,052	\$1,751,765
Net Revenues		\$6,285	\$178,190	\$183,536	\$189,042	\$194,713	\$200,554
Ending Operating Balance		\$1,006,285	\$1,184,475	\$1,368,010	\$1,557,052	\$1,751,765	\$1,952,319
Target Operating Balance [3]		\$1,934,798	\$1,783,763	\$1,886,662	\$1,987,308	\$2,095,077	\$2,210,578

"proj\_cashflow"

[1] Connection fees for 2013-14 are budgeted and held constant for purposes of this analysis

Calculated Dev Imp Fee Treatment Only

\$3,222

Number of New EDUS per Year

11.17

Total revenues = \$36,000.00

[2] Cash and cash equivalents balance, end of fiscal year 2012-13: page 25 Audited Financial Statement (BUT ONLY A PORTION Currently)

[3] The target operating balance represents 6 months of operating expenses, excluding debt service

Table 8  
City of Auburn  
Sewer Enterprise Fund  
Capital Improvement Project (CIP) Pro Forma Cash Flow

	DRAFT											Total
	0 2013-14	1 2014-15	2 2015-16	3 2016-17	4 2017-18	5 2018-19	6 2019-20	7 2020-21	8 2021-22	9 2022-23	10 2023-24	
<b>Revenues:</b>												
Transfer from Operating Fund												\$5,534,573
Depreciation	\$451,257	\$464,795	\$478,739	\$493,101	\$507,894	\$523,131	\$523,131	\$523,131	\$523,131	\$523,131	\$523,131	\$14,766,974
Capital Projects	\$1,525,000	\$970,000	\$1,086,400	\$1,195,040	\$1,314,544	\$1,445,998	\$1,445,998	\$1,445,998	\$1,445,998	\$1,445,998	\$1,445,998	\$219,284
Interest Income		\$0	\$87,574	\$54,892	\$2,831	\$2,920	\$854	\$5,679	\$10,361	\$21,627	\$32,546	\$6,100,000
Bond/Loan Proceeds		\$5,000,000	\$1,100,000									\$26,620,832
<b>Subtotal</b>	<b>\$1,976,257</b>	<b>\$6,434,795</b>	<b>\$2,752,713</b>	<b>\$1,743,033</b>	<b>\$1,825,269</b>	<b>\$1,972,050</b>	<b>\$1,969,983</b>	<b>\$1,974,809</b>	<b>\$1,979,490</b>	<b>\$1,990,757</b>	<b>\$2,001,676</b>	
<b>Expenses:</b>												
Oxidation Ditch Imp Proj - NPDES	\$300,000	\$1,100,000	\$2,200,000	\$3,300,000								\$6,900,000
Regional Sewer Project	\$300,000	\$3,600,000	\$2,731,500	\$1,913,800	\$1,819,300	\$2,109,800	\$1,648,300	\$1,662,700	\$1,228,400	\$1,262,800	\$1,262,800	\$3,900,000
Other Annual CIP Projects	\$925,000	\$1,447,791	\$4,931,500	\$5,213,800	\$1,819,300	\$2,109,800	\$1,648,300	\$1,662,700	\$1,228,400	\$1,262,800	\$1,262,800	\$28,812,191
<b>Subtotal</b>	<b>\$1,525,000</b>	<b>\$6,147,791</b>	<b>\$4,931,500</b>	<b>\$5,213,800</b>	<b>\$1,819,300</b>	<b>\$2,109,800</b>	<b>\$1,648,300</b>	<b>\$1,662,700</b>	<b>\$1,228,400</b>	<b>\$1,262,800</b>	<b>\$1,262,800</b>	
<b>Net Income (Loss)</b>	<b>\$451,257</b>	<b>\$287,004</b>	<b>(\$2,178,787)</b>	<b>(\$3,470,767)</b>	<b>\$5,969</b>	<b>(\$137,750)</b>	<b>\$321,683</b>	<b>\$312,109</b>	<b>\$751,090</b>	<b>\$727,957</b>	<b>\$738,876</b>	<b>(\$2,191,359)</b>
<b>Beginning Balance</b>	<b>\$5,100,000</b>	<b>\$5,551,257</b>	<b>\$5,838,262</b>	<b>\$3,659,475</b>	<b>\$188,708</b>	<b>\$194,677</b>	<b>\$56,926</b>	<b>\$378,610</b>	<b>\$690,718</b>	<b>\$1,441,808</b>	<b>\$2,169,765</b>	<b>\$5,100,000</b>
<b>Net Income (Loss)</b>	<b>\$451,257</b>	<b>\$287,004</b>	<b>(\$2,178,787)</b>	<b>(\$3,470,767)</b>	<b>\$5,969</b>	<b>(\$137,750)</b>	<b>\$321,683</b>	<b>\$312,109</b>	<b>\$751,090</b>	<b>\$727,957</b>	<b>\$738,876</b>	<b>(\$2,191,359)</b>
<b>Ending Balance</b>	<b>\$5,551,257</b>	<b>\$5,838,262</b>	<b>\$3,659,475</b>	<b>\$188,708</b>	<b>\$194,677</b>	<b>\$56,926</b>	<b>\$378,610</b>	<b>\$690,718</b>	<b>\$1,441,808</b>	<b>\$2,169,765</b>	<b>\$2,908,641</b>	<b>\$2,908,641</b>

2014-15

## DRAFT

Table 9  
City of Auburn  
Sewer Enterprise Fund  
Projected Costs and Distribution between Collection and Treatment System

Sewer Enterprise Fund Projected Costs and Distribution between Collection and Treatment System										"PDCOL costs"	
	Inflation Adjustment	Budget 2013-14	2014-15	Allocation		Collection System		Treatment System		Variable	
				Collection	Treatment	Cost	Fixed	Variable	Cost		Fixed
Years Inflated				1							
<b>Expenditures</b>											
Salaries and Benefits	5.00%	\$379,596	\$398,576	--Assumed--		80%	\$79,715	\$79,715	\$318,861	\$318,861	
Additional Salaries & Benefits	5.00%		\$175,000	20%	80%	\$35,000	\$35,000	\$140,000	\$140,000		
Services and Supplies	3.00%	\$1,924,000	\$1,981,720	20%	80%	\$396,344	\$396,344	\$1,585,376	\$1,268,301		
Maintenance	3.00%	\$41,000	\$42,230	20%	80%	\$8,446	\$8,446	\$33,784	\$33,784		
Capital Projects		\$1,525,000	\$970,000	20%	80%	\$194,000	\$194,000	\$776,000	\$776,000		
Depreciation	3.00%	\$451,257	\$464,795	20%	80%	\$92,959	\$92,959	\$371,836	\$371,836		
<b>Subtotal</b>		<b>\$4,320,853</b>	<b>\$4,032,321</b>			<b>\$806,464</b>	<b>\$806,464</b>	<b>\$3,225,857</b>	<b>\$2,908,782</b>	<b>\$317,075</b>	
Current Debt Service	0.00%	\$853,734	\$853,734	20%	80%	\$170,747	\$170,747	\$682,987	\$682,987		
Additional Debt Service	0.00%	\$0	\$442,000	20%	80%	\$88,400	\$88,400	\$353,600	\$353,600		
General Reserve	3.00%	\$173,000	\$178,190	20%	80%	\$35,638	\$35,638	\$142,552	\$142,552		
<b>Subtotal</b>		<b>\$5,347,587</b>	<b>\$5,506,245</b>			<b>\$1,101,249</b>	<b>\$1,101,249</b>	<b>\$4,404,996</b>	<b>\$4,087,921</b>	<b>\$317,075</b>	
Less Other Revenues		(\$111,000)	(111,000)								
<b>Total</b>		<b>\$5,236,587</b>	<b>\$5,395,245</b>								

"proj\_costs"

2014-15

DRAFT

Table 10  
City of Auburn  
Sewer Enterprise Fund  
Unit Cost Determination

Cost Category	Allocated Operating Costs	Percent Allocation			Cost			Total Influent			Unit Cost Per:		
		Flow	BOD	SS	Flow	BOD	SS	Flow MG	BOD Klbs	SS Klbs	Mgal of Flow (\$/Mgal)	Klb of BOD (\$/Klb)	Klb of SS (\$/Klb)
Collection System O&M Costs [1] [2]	Fixed												
	Variable	90%			\$725,818	\$0	\$0	457.92	0.00	0.00	\$1,585.01		\$176.11
	Total Collection	90%			\$725,818	\$0	\$0	457.92	0.00	0.00	\$1,585.01	\$0.00	\$0.00
Treatment O&M Costs	Fixed				\$2,617,903	\$0	\$0	457.92	0.00	0.00	\$5,716.88		\$635.21
	Variable	90%			\$285,368	\$0	\$0	457.92	0.00	0.00	\$623.18		\$69.24
	Total Treatment	90%			\$2,903,271	\$0	\$0	457.92	0.00	0.00	\$6,340.06	\$0.00	\$704.45
Debt Service					\$1,166,161	\$0	\$0	457.92	0.00	0.00	\$2,546.62		\$282.96
SUBTOTAL	\$5,328,055										\$10,471.69		\$1,163.52
Other Cost Impacts	General Reserve				\$160,371	\$0	\$0	457.92	0.00	0.00	\$350.21		\$38.91
	Rounding				\$0	\$0	\$0	457.92	0.00	0.00	\$0.00		\$0.00
	Credit/Offset for Other Revenues				(\$99,900)	\$0	\$0	457.92	0.00	0.00	(\$218.16)		(\$24.24)
Total	\$67,190				\$60,471	\$0	\$0	457.92	0.00	0.00	\$132.05	\$0.00	\$14.67
TOTAL	\$5,395,245				\$4,855,720	\$0	\$0				\$10,603.75	\$0.00	\$1,178.19

unit\_costs

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Table 11  
City of Auburn  
Sewer Enterprise Fund  
Allocation of Costs to Flow, BOD, and SS by Customer Category

Unit Cost/Customer Category	Flow			Collection			Operating Costs			Treatment			Capital Costs			Other Revenue Impacts			Total
	MG/Yr	BOD Kib/Yr	SS Kib/Yr	Flow (\$/Mgal)	II (\$/Mgal)	SS (\$/Kib)	Flow (\$/Mgal)	BOD (\$/Kib)	SS (\$/Kib)	Flow (\$/Mgal)	BOD (\$/Kib)	SS (\$/Kib)	Flow (\$/Mgal)	BOD (\$/Kib)	SS (\$/Kib)	Flow (\$/Mgal)	BOD (\$/Kib)	SS (\$/Kib)	
Unit Cost				\$1,585.01	\$176.11	\$0.00	\$6,340.06	\$0.00	\$0.00	\$704.45	\$2,546.62	\$0.00	\$0.00	\$0.00	\$282.96	\$11,635	\$132.05	\$0.00	\$11,782
<b>Residential</b>																			
Single Family	181.63	-	-	\$287,881	\$31,987	\$0	\$1,151,523	\$0	\$0	\$127,947	\$462,534	\$0	\$0	\$0	\$51,393	\$2,113,264	\$23,985	\$0	\$2,139,913
Multiple Dwelling	72.35	-	-	\$114,680	\$12,742	\$0	\$458,720	\$0	\$0	\$50,969	\$184,255	\$0	\$0	\$0	\$20,473	\$841,839	\$9,554	\$0	\$862,455
Duplex / Triplex / Condo / Townhome	32.43	-	-	\$51,395	\$5,711	\$0	\$205,579	\$0	\$0	\$22,842	\$82,575	\$0	\$0	\$0	\$9,175	\$379,277	\$4,282	\$0	\$382,035
Duplex / Triplex / Condo / Townhome W/1	2.54	-	-	\$4,025	\$447	\$0	\$16,099	\$0	\$0	\$1,789	\$6,466	\$0	\$0	\$0	\$178	\$79,544	\$335	\$0	\$79,917
Duplex / Triplex / Condo / Townhome W/2	1.55	-	-	\$2,464	\$274	\$0	\$9,854	\$0	\$0	\$1,095	\$3,958	\$0	\$0	\$0	\$440	\$18,084	\$205	\$0	\$18,312
Duplex / Triplex / Condo / Townhome W/3	0.07	-	-	\$1,107	\$12	\$0	\$428	\$0	\$0	\$48	\$172	\$0	\$0	\$0	\$19	\$786	\$9	\$0	\$796
Multiple Dwelling W/ Lift Station	5.86	-	-	\$9,295	\$1,033	\$0	\$37,179	\$0	\$0	\$431	\$14,934	\$0	\$0	\$0	\$1,659	\$68,230	\$74	\$0	\$69,090
CDBG \$13.00/Mo. Reduction	0.17	-	-	\$906	\$101	\$0	\$3,623	\$0	\$0	\$403	\$1,455	\$0	\$0	\$0	\$162	\$6,649	\$16	\$0	\$6,733
CDBG - Duplex / Triplex / Condo / Townhome	0.57	-	-	\$193	\$21	\$0	\$774	\$0	\$0	\$86	\$311	\$0	\$0	\$0	\$35	\$1,925	\$22	\$0	\$1,959
CDBG - 1SFD W/DISC 1SFD W/O DISC	0.12	-	-	\$264	\$29	\$0	\$1,054	\$0	\$0	\$117	\$423	\$0	\$0	\$0	\$47	\$1,935	\$55	\$0	\$2,004
CDBG \$13.00-MO W/2 Lift Station	0.41	-	-	\$654	\$73	\$0	\$2,618	\$0	\$0	\$24	\$87	\$0	\$0	\$0	\$10	\$4,804	\$4	\$0	\$4,864
CDBG 1 APT W/DISC	0.03	-	-	\$54	\$6	\$0	\$243,187	\$0	\$0	\$27,021	\$97,681	\$0	\$0	\$0	\$10,853	\$446,284	\$5,065	\$0	\$451,922
SFD W/2 Lift Stations	38.36	-	-	\$60,797	\$6,755	\$0	\$255,726	\$0	\$0	\$36,192	\$130,835	\$0	\$0	\$0	\$14,537	\$577,768	\$6,784	\$0	\$605,307
SFD with Sewer Lift Station	51.38	-	-	\$81,431	\$9,048	\$0	\$325,726	\$0	\$0	\$36,192	\$130,835	\$0	\$0	\$0	\$14,537	\$577,768	\$6,784	\$0	\$605,307
<b>Subtotal - Residential</b>	<b>387.47</b>			<b>\$614,145</b>	<b>\$68,238</b>	<b>\$0</b>	<b>\$2,456,579</b>	<b>\$0</b>	<b>\$0</b>	<b>\$272,953</b>	<b>\$986,737</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$109,637</b>	<b>\$4,508,290</b>	<b>\$51,167</b>	<b>\$0</b>	<b>\$4,565,142</b>
<b>Non-Residential</b>																			
Auto Dealership	0.05	-	-	\$83	\$9	\$0	\$333	\$0	\$0	\$37	\$134	\$0	\$0	\$0	\$15	\$612	\$7	\$0	\$620
Bank/Financial Inst	0.46	-	-	\$733	\$81	\$0	\$2,933	\$0	\$0	\$326	\$1,178	\$0	\$0	\$0	\$131	\$5,383	\$61	\$0	\$5,451
Bakery	1.20	-	-	\$1,695	\$211	\$0	\$7,579	\$0	\$0	\$442	\$3,044	\$0	\$0	\$0	\$338	\$13,908	\$158	\$0	\$14,084
Bar	0.41	-	-	\$652	\$72	\$0	\$2,607	\$0	\$0	\$290	\$1,047	\$0	\$0	\$0	\$116	\$4,784	\$54	\$0	\$4,844
Dry Cleaner	0.24	-	-	\$375	\$42	\$0	\$1,501	\$0	\$0	\$140	\$420	\$0	\$0	\$0	\$458	\$18,825	\$214	\$0	\$19,062
Hall Lodge Auditorium	0.22	-	-	\$351	\$39	\$0	\$1,404	\$0	\$0	\$167	\$603	\$0	\$0	\$0	\$67	\$2,754	\$31	\$0	\$2,789
Health Studio Gym	0.22	-	-	\$407	\$46	\$0	\$1,798	\$0	\$0	\$156	\$630	\$0	\$0	\$0	\$63	\$2,577	\$29	\$0	\$2,609
Market w/Disposal Unit	2.55	-	-	\$1,113	\$13	\$0	\$4,542	\$0	\$0	\$50	\$181	\$0	\$0	\$0	\$20	\$829	\$9	\$0	\$839
Medical/Dental Office	0.07	-	-	\$1,995	\$222	\$0	\$7,979	\$0	\$0	\$887	\$3,205	\$0	\$0	\$0	\$356	\$14,642	\$166	\$0	\$14,827
Business Office	2.31	-	-	\$3,664	\$407	\$0	\$14,656	\$0	\$0	\$397	\$1,436	\$0	\$0	\$0	\$160	\$6,662	\$74	\$0	\$6,744
Place of Worship	0.56	-	-	\$1,721	\$141	\$0	\$5,654	\$0	\$0	\$565	\$2,039	\$0	\$0	\$0	\$221	\$9,385	\$106	\$0	\$9,562
Public Agency	8.03	-	-	\$1,828	\$203	\$0	\$7,313	\$0	\$0	\$813	\$2,938	\$0	\$0	\$0	\$326	\$13,421	\$152	\$0	\$13,591
Restaurant	37.20	-	-	\$58,957	\$6,551	\$0	\$235,626	\$0	\$0	\$26,203	\$94,725	\$0	\$0	\$0	\$10,525	\$432,786	\$4,912	\$0	\$438,244
Restaurant Take-out Only	2.22	-	-	\$2,905	\$323	\$0	\$11,619	\$0	\$0	\$156	\$5,648	\$0	\$0	\$0	\$628	\$25,805	\$283	\$0	\$26,131
Warehouse	0.09	-	-	\$139	\$15	\$0	\$557	\$0	\$0	\$62	\$224	\$0	\$0	\$0	\$25	\$1,022	\$12	\$0	\$1,035
Used Car Lot	0.02	-	-	\$24	\$3	\$0	\$95	\$0	\$0	\$11	\$38	\$0	\$0	\$0	\$4	\$175	\$2	\$0	\$177
Car Wash	0.13	-	-	\$212	\$24	\$0	\$848	\$0	\$0	\$94	\$341	\$0	\$0	\$0	\$38	\$1,557	\$18	\$0	\$1,576
Barber/Beauty Shop	0.45	-	-	\$710	\$79	\$0	\$2,839	\$0	\$0	\$315	\$1,140	\$0	\$0	\$0	\$127	\$5,210	\$59	\$0	\$5,276
Hotel Motel	0.87	-	-	\$1,383	\$154	\$0	\$5,530	\$0	\$0	\$614	\$2,221	\$0	\$0	\$0	\$247	\$10,149	\$115	\$0	\$10,277
Self Service Laundry	0.08	-	-	\$1,488	\$165	\$0	\$5,950	\$0	\$0	\$661	\$2,390	\$0	\$0	\$0	\$266	\$10,920	\$124	\$0	\$11,057
Garage	0.57	-	-	\$2,483	\$276	\$0	\$9,931	\$0	\$0	\$57	\$205	\$0	\$0	\$0	\$23	\$937	\$11	\$0	\$949
Rest Home/Boarding House	1.99	-	-	\$3,154	\$350	\$0	\$12,614	\$0	\$0	\$103	\$3,989	\$0	\$0	\$0	\$443	\$18,226	\$207	\$0	\$18,456
School	0.03	-	-	\$48	\$5	\$0	\$190	\$0	\$0	\$21	\$76	\$0	\$0	\$0	\$8	\$315	\$4	\$0	\$324
Service Station	0.11	-	-	\$177	\$20	\$0	\$707	\$0	\$0	\$79	\$284	\$0	\$0	\$0	\$32	\$1,298	\$15	\$0	\$1,314
Theatre	0.79	-	-	\$1,256	\$140	\$0	\$5,025	\$0	\$0	\$568	\$2,018	\$0	\$0	\$0	\$224	\$9,222	\$105	\$0	\$9,338
UPRR - Multi User	70.46	-	-	\$111,673	\$12,408	\$0	\$446,692	\$0	\$0	\$49,632	\$179,423	\$0	\$0	\$0	\$19,936	\$819,765	\$9,304	\$0	\$830,103
<b>Subtotal</b>	<b>457.92</b>	<b>0.00</b>	<b>0.00</b>	<b>\$725,818</b>	<b>\$80,646</b>	<b>\$0</b>	<b>\$2,903,271</b>	<b>\$0</b>	<b>\$0</b>	<b>\$322,586</b>	<b>\$1,166,161</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$129,573</b>	<b>\$9,836,345</b>	<b>\$60,471</b>	<b>\$0</b>	<b>\$5,395,245</b>
<b>TOTAL</b>																			

Table 12  
City of Auburn  
Sewer Enterprise Fund  
Detailed Sewer Rate Calculation

DRAFT

2014-15

Customer Category	Number of Billing Units	Allocated Cost	Annual Cost Billing Unit	Monthly Cost	
				Billing Unit Mo. Charge	Basis of Charge
<b>Residential</b>					
Single Family	2,661	\$2,139,913	\$804.18	\$67.01	per Unit
Multiple Dwelling	1,493	\$852,455	\$570.97	\$47.58	per Unit
Duplex / Triplex / Condo / Townhome	617	\$382,035	\$619.18	\$51.60	per Unit
Duplex/Triplex/Condo/Townhome W/2 Lift Station	31	\$29,917	\$965.06	\$80.42	per Unit
Duplex/Triplex/Condo/Townhome W/1 Lift Stations	23	\$18,312	\$796.18	\$66.35	per Unit
Multiple Dwelling W/ Lift Station	1	\$796	\$796.18	\$66.35	per Unit
CDBG \$13.00/Mo. Reduction	109	\$69,090	\$633.86	\$52.82	per Unit
CDBG - Duplex /Triplex/Condo/ Townhome	15	\$6,733	\$448.86	\$37.41	per Unit
CDBG 1SFD W/DISC 1SFD W/O DISC	1	\$1,438	\$1,438.03	\$119.84	per Unit
CDBG \$13.00-MO W/ 2 Lift Stations	2	\$1,959	\$979.61	\$81.63	per Unit
CDBG \$13.00-/MO W/Lift Station	6	\$4,864	\$810.73	\$67.56	per Unit
CDBG 1 APT W/DISC	1	\$401	\$400.65	\$33.39	per Unit
SFD W/2 Lift Stations	393	\$451,922	\$1,149.93	\$95.83	per Unit
SFD with Sewer Lift Station	617	\$605,307	\$981.05	\$81.75	per Unit
<b>Subtotal - Residential</b>	<b>5,970</b>	<b>\$4,565,142</b>			
<b>Non-Residential</b>					
Auto Dealership	3.9	\$620	\$160.84	\$13.40	per 1,000 SF
Bank/Financial Inst.	22.6	\$5,451	\$241.25	\$20.10	per 1,000 SF
Bakery	10.3	\$14,084	\$1,367.10	\$113.92	per 1,000 SF
Bar	8.6	\$4,844	\$562.92	\$46.91	per 1,000 SF
Dry Cleaner	13.9	\$19,062	\$1,367.10	\$113.92	per 1,000 SF
Hall, Lodge, Auditorium	11.6	\$2,789	\$241.25	\$20.10	per 1,000 SF
Health Studio, Gym	10.8	\$2,609	\$241.25	\$20.10	per 1,000 SF
Market w/Disposal Unit	37.4	\$30,079	\$804.18	\$67.01	per 1,000 SF
Market w/o Disposal Unit	5.2	\$839	\$160.84	\$13.40	per 1,000 SF
Medical/Dental Office	46.1	\$14,827	\$321.67	\$26.81	per 1,000 SF
Business Office	169.3	\$27,236	\$160.84	\$13.40	per 1,000 SF
Place of Workshop	41.3	\$6,644	\$160.84	\$13.40	per 1,000 SF
Public Agency	196.0	\$94,562	\$482.51	\$40.21	per 1,000 SF
Mortuary	13.0	\$13,591	\$1,045.43	\$87.12	per Slumber Room
Restaurant	272.5	\$438,244	\$1,608.35	\$134.03	per 1,000 SF
Restaurant, Take-out Only	19.1	\$26,131	\$1,367.10	\$113.92	per 1,000 SF
Retail	134.3	\$21,593	\$160.84	\$13.40	per 1,000 SF
Warehouse	12.9	\$1,035	\$80.42	\$6.70	per 1,000 SF
Used Car Lot	1.1	\$177	\$160.84	\$13.40	per 10 fixtures
Car Wash	2.8	\$1,576	\$562.92	\$46.91	per Stall
Barber/Beauty Shop	32.8	\$5,275	\$160.84	\$13.40	per Chair
Hotel, Motel	42.6	\$10,277	\$241.25	\$20.10	per Sleeping Room
Self Service Laundry	27.5	\$11,057	\$402.09	\$33.51	per Machine
Garage	11.8	\$949	\$80.42	\$6.70	per Bay
Rest Home/Boarding House	76.5	\$18,456	\$241.25	\$20.10	per Bed
School	29.1	\$23,442	\$804.18	\$67.01	per 100 Students
Service Station	4.4	\$354	\$80.42	\$6.70	per Pump
Theatre	5.4	\$1,314	\$241.25	\$20.10	per 100 Seats
Brewery	2.4	\$9,338	\$3,860.05	\$321.67	per 1,000 SF
UPPR - Multi User [1]	29.4	\$23,647	\$804.18	\$67.01	per EDU [1]
<b>TOTAL</b>		<b>\$5,395,245</b>			

"rate\_calc"

[1] Billed separately by the City and accounts for actual tenants and use.



[illegible]

# **CITY OF AUBURN**

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## **Final Sewer Rate & Fee Analysis**

April 23, 2007

*Prepared for:*

City of Auburn  
1225 Lincoln Way  
Auburn, California 95603

*Prepared by:*

ECO:LOGIC Engineering  
AUBR07 001

**ECO:LOGIC**

Consulting Engineers

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**City of Auburn Sewer Rate & Fee Analysis**


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## Section 1

### Overview

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The City of Auburn (the City) currently provides sewer collection and treatment for approximately 4,934 parcels. The City currently bills its charges for this service on the annual property tax bill, where it is collected along with the property tax against parcels in the City. Of these parcels, approximately 4,327 are residential customers, and the remaining 607 are commercial/non-residential parcels.

The City is currently planning significant improvements to its wastewater treatment facilities. The City's NPDES permit (CA0077712, adopted March 2005) requires that the WWTP must be upgraded to reduce effluent nitrogen levels and eliminate disinfection byproducts by December 2009. Other trace pollutants must also be reduced through source control measures. These sewer facility upgrades represent significant costs to this small foothill community. The existing sewer rates will need to be increased in order to support financing of these projects.

The City requested that ECO:LOGIC Engineering analyze the existing rates and recommend updated rates to support the necessary capital improvement program while at the same time maintaining efficient operation and maintenance of the City. This Report summarizes the analysis and findings.

The sewer rates were last updated in 1995. The rate per single family unit is \$35.00 per dwelling unit. In 2001, the rate structure was modified somewhat, in that any residential unit that wasn't a single family unit was to be considered a multiple dwelling unit. This resulted in a rate reduction for duplexes, triplexes, and condos as they were changed over to the same rate as a multi-family unit or apartment.

This rate analysis recommends that duplexes, triplexes, and condos be separated into their own customer category. Rather than two general categories of residential users, single family and multiple dwellings, it is recommended that there be three general categories:

- Single Family
- Duplex, Triplex, and Condo
- Multi-Family (Apartment)

This rate structure is similar to that of Placer County and recognizes that duplexes, triplexes, and condos typically have more people per household than an apartment but less than a single family dwelling unit.

Other than this proposed change to the rate structure, there are no other proposed changes to the rate structure at this time.

## Section 2

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**Capital Improvement Program****2.1 EXISTING FACILITIES**

The City's wastewater treatment process has evolved with changing wastewater regulations and policies. As the treatment process exists today, it consists of six major components (and the associated ancillary facilities):

- A nitrifying activated sludge treatment process (oxidation ditch and associated secondary clarifiers) with a wastewater treatment capacity of 1.67 MGD.
- A four-cell, 3.4 MG aerated treatment pond system with 90 HP of aeration equipment designed 1) to serve as influent flow equalization before going to the oxidation ditch, and 2) to provide initial treatment to large flows of dilute wastewater (resulting from infiltration and inflows) that will be treated in the overall 33 MG aerated and non-aerated pond treatment system that can operate in parallel with the oxidation ditch.
- 5.3 MGD of effluent tertiary filter capacity.
- 136,000 gallon chlorine contact basin capable of providing approximately 2 hours of contact time at design average flows.
- 30 MG of non-aerated wastewater ponds that can be used for 1) long-term storage of large volumes of influent, and 2) additional treatment of effluent leaving the aerated treatment pond system.
- A belt filter press facility that is used to dewater waste sludge that is then trucked offsite to a landfill.

The facility is able to meet the effluent limitations contained in its current NPDES permit. However, in addition to the current requirements set by the permit, the permit contains several new effluent limits and an associated compliance schedule that will require several upgrades to the existing facilities.

**2.2 PLANNED FACILITY UPGRADES**

The City of Auburn's renewed NPDES permit contains several new effluent limitations that must be met by December 2009. These new limits will require upgrades to the City's wastewater treatment plant to include denitrification facilities and to replace chlorine disinfection facilities with ultraviolet (UV) light disinfection. The following project elements have been identified:

- Construction of a complete UV disinfection system in compliance with State requirements.
- Upgrading the plant electrical system to power the UV disinfection system with the provision of onsite backup power generation.
- Construction of a new building to house the motor control center and PLCs if insufficient space exists within the filter control building
- Modification of the existing hypochlorite system for process cleaning.
- Enhancements to the existing oxidation ditch aeration system to optimize denitrification
- Provisions for a methanol feed system for denitrification within the filters.
- Other miscellaneous improvements determined during design activities to improve system reliability.

In addition to the WWTP facility improvements, the California State Water Resources Control Board (SWRCB) recently approved new Sanitary Sewer Overflow (SSO) regulations. In an effort to reduce and prevent as well as mitigate any potential SSOs, the City will be required to develop and implement a Sanitary Sewer Management Plan (SSMP) to comply with these new regulations. The full cost implications of these regulations are not known at this time, but the City has budgeted for additional monitoring and studies to meet the near-term SSMP requirements.

Table 2-1 provides a summary of the current and projected capital improvement program (CIP) planned by the City. The on-going CIP improvements for 2006-07 are planned to be funded out of existing sewer fund reserves. After 2006-07, the expenses in the on-going CIP category are budgeted for in the projected rate calculations that are discussed in more detail below.

The WWTP Upgrade improvements will most likely be funded by the City through a revenue bond. The project cost is currently estimated at \$11,745,000 and this reflects a planning estimate only. The costs will be further refined as the project moves into the design stage and ultimately when it is bid and constructed.

Table 2-1  
Capital Project Summary - With City of Auburn Upgrades to WWTP

Description	Actual 2004-05	Actual 2005-06	Budgeted 2006-07	Projected		Total 04-05 to 10-11	Included in Financing		% Allocated to		Cost Allocated to	
				2006-08	2009-10		Existing	New	Existing	New	Existing	New
<b>On-Going CIP Improvement Projects</b>												
Machinery & Equipment	\$1,483	\$2,771	\$25,000	\$100,000	\$105,000	\$110,250	\$115,763				\$0	\$0
Steam Flow Gauge	\$9,388	\$280	\$0								\$0	\$0
Auburn Ravine Sampling	\$1,858	\$0	\$2,000								\$0	\$0
Stream Sampling for WWTP	\$98	\$0	\$0								\$0	\$0
BIOASSAY Testing WWTP	\$235	\$0	\$0								\$0	\$0
Village Lane/Fulwider Sewer	\$0	\$399	\$0								\$0	\$0
Lift Station Repairs	(\$204)	\$114,431	\$100,000	\$250,000	\$262,500	\$275,625	\$289,406				\$0	\$0
Canyon Court/Forest Hill Ave.	\$903	\$18,283	\$715,000								\$0	\$0
North McDaniel/Skyridge Sewer	\$0	\$30,089	\$10,000								\$0	\$0
Emergency Sewer Repair Projects	\$200,038	\$290,905	\$300,000	\$250,000	\$262,500	\$275,625	\$289,406				\$0	\$0
Sewer Map Updates	\$23,708	\$2,687	\$50,000								\$0	\$0
Prospector Hill Sewer Projects	\$0	\$7,826	\$15,000								\$0	\$0
WWTP Repairs/Projects	\$20,325	\$124,095	\$200,000								\$0	\$0
Collection Systems TV Equipment	\$144	\$0	\$0								\$0	\$0
Robie Point Sewer Repair	\$0	\$26,671	\$20,000								\$0	\$0
WWTP SCADA System	\$0	\$651	\$10,000								\$0	\$0
Gunite Ditch - WWTP	\$4,074	\$7,380	\$0								\$0	\$0
NPDES Permit Renewal	\$0	\$4,114	\$5,000								\$0	\$0
Back Flow Preventer Device	\$0	\$0	\$0								\$0	\$0
Television Van	\$0	\$47,495	\$600,000								\$0	\$0
WWTP Line Ponds 1A & 4	\$0	\$0	\$10,000								\$0	\$0
WWTP Additional Storage	\$0	\$1,972	\$40,000								\$0	\$0
Develop Source Control Program	\$0	\$98,528	\$500,000								\$0	\$0
Upper Village Oaks Litteration	\$0	\$12,882	\$0								\$0	\$0
Lower Village Oaks Litteration	\$0	\$0	\$0								\$0	\$0
Thermal Impact Study	\$0	\$0	\$0								\$0	\$0
Ultraviolet Disinfection	\$0	\$0	\$50,000								\$0	\$0
Vactor Truck	\$0	\$0	\$350,000								\$0	\$0
Hydro Jet Unit	\$0	\$0	\$40,000								\$0	\$0
<b>Subtotal</b>	<b>\$260,665</b>	<b>\$789,046</b>	<b>\$2,692,000</b>	<b>\$600,000</b>	<b>\$630,000</b>	<b>\$661,500</b>	<b>\$694,675</b>				<b>\$40,909</b>	<b>\$9,091</b>
<b>WWTP Upgrade</b>												
Development of an SSES Program				\$200,000	\$50,000	\$50,000	\$50,000				\$286,364	\$63,636
Trace Pollutant Studies/ Public Education				\$100,000	\$100,000	\$100,000	\$20,000				\$261,818	\$68,182
Pre-Design of WWTP Upgrades			\$50,000								\$163,636	\$36,364
Design of WWTP Upgrades				\$150,000							\$864,545	\$145,455
Planning (CEQA/ Financing) for WWTP Upgrades				\$25,000							\$20,455	\$4,545
Construction												
Chemical Feed and Storage Facilities				\$600,000							\$490,909	\$109,091
Denitrification Facilities				\$200,000							\$163,636	\$36,364
UV Disinfection Facilities				\$1,000,000	\$8,000,000						\$5,727,273	\$1,272,727
Membrane Filtration				\$1,000,000							\$0	\$0
Allowance for Unknown Projects				\$500,000	\$1,000,000						\$1,227,273	\$272,727
Construction Services (Eng Services, CM, Inspection)				\$100,000	\$600,000						\$572,727	\$127,273
<b>Subtotal</b>	<b>\$0</b>	<b>\$0</b>	<b>\$50,000</b>	<b>\$2,875,000</b>	<b>\$8,560,000</b>	<b>\$160,000</b>	<b>\$70,000</b>				<b>\$9,568,636</b>	<b>\$2,126,364</b>
<b>TOTAL</b>	<b>\$260,665</b>	<b>\$789,046</b>	<b>\$2,617,000</b>	<b>\$3,375,000</b>	<b>\$9,075,000</b>	<b>\$701,250</b>	<b>\$648,813</b>				<b>\$9,609,545</b>	<b>\$2,135,455</b>

## Section 3

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**Sewer Rate Analysis & Financing Plan****3.1 SEWER RATE ANALYSIS**

The calculated sewer rates are based on a systematic analysis of the sewer contribution made by various land uses and the costs required to collect and treat sewer influent. In the case of City of Auburn, which is a small community, only assumed wastewater flow is used to determine the relative impact each customer has on the sewer system.

The sewer rate model allocates both current and projected costs to the various customer categories based on their relative contribution to the sewer system influent (based on flow only). The allocation of costs between customer categories is based on existing sewer rate or use factors used by the City of Auburn.

Sewer expenditures include the following categories:

- Administrative Expenses
- Materials and Services
- Contract Operations
- Capital Projects/Facility Replacement
- Capital Outlay
- Expenditure Reimbursement (GF-Admin.)
- Additional Costs due to Local Project
- Debt Service

Once the costs are allocated to the various customer categories, rates are determined by dividing the allocated costs by the number of users/accounts in each category or classification. A more detailed description follows.

The following discussion provides an overview and or summary of the rate analysis. The model tables for fiscal year 2007-08 are included in **Appendix A**.

**3.1.1 HISTORICAL AND BUDGETED REVENUES**

Table 3-1 shows the actual and or estimated revenues and expenses for 1999-00 through 2005-06, as well as the budgeted revenues and expense for 2006-07.



## Summary of Revenues and Expenses

"Just buckel"

Source: City of Auburn

### 3.1.2 SEWER CUSTOMERS

Table 3-2 summarizes the sewer customers, both residential and commercial. The City bills its sewer service charge annually with the property tax assessment rolls. Table 3-2 shows both the parcel count for residential and non-residential users, but also the "billing units." The City charges residential parcels on a per unit basis. However, the basis for charge for non-residential uses varies from a per square foot (sqft) basis, to students, to chairs, etc. This information is summarized in Table 3-2.

The assumed flow per user is also shown in Table 3-2. The flow factors are based on the current sewer use factors used by the City. These factors were determined as part of a previous rate analysis and no change is proposed in these assumptions as part of this study.

A single family unit is considered one equivalent dwelling unit (EDU). The flow assumed for a single family unit is 187 gallons per day (gpd), which is based on an assumed use of 85 gallons per person and there being on average 2.2 people per household in the City of Auburn. For the other billing categories, the EDU factor is multiplied times the single family unit flow (gpd) to determine each categories assumed respective sewer use. There are an estimated 6,852 total EDUs based on flow only.

It should be clarified that in the case of residential units with sewer lift stations, the EDU factor is not necessarily representative of flow, but rather a function of the way the parcel is charged. The EDU factors have been adjusted, not based on flow, but on the ratio these units pay monthly relative to a single family unit or one EDU. Appendix D provides further explanation of the additional allocated costs to sewer lift stations.

There are a total of 4,327 residential parcels representing approximately 5,637 residential units. There are a total of 607 non-residential parcels.

This rate analysis recommends that duplexes, triplexes, and condos be separated into their customer category. Rather than two general categories of residential users, single family and multiple dwellings, it is recommended that there be three general categories:

- Single Family
- Duplex, Triplex, Condo, and Townhome
- Multi-Family (Apartment)

This rate structure is similar to that of Placer County and recognizes that duplexes, triplexes, and condos typically have more people per household than an apartment but less than a single family dwelling unit.

Table 3-2  
Summary of Wastewater User Characteristics

Customer Category	Basis of Charge	Parcel Units/Accounts	Billing Units	EDU Factor	Wastewater Characteristics [1]		Existing Treatment Capacity		Total Annual Capacity	
					ADWWF User GPD (B)	EDU Factor (A)	Flow MGD (E)=444(B)	Flow MGD (F)=62.365	Flow MGD (G)=200.77	Flow MGD (H)=517.69
Residential										
Single Family	per Unit	2,985	3,073	1.00	187		0.5747		200.77	
Single Family w/1 Sewer Lift Stat. [2]	per Unit	447	448	1.32	227		0.1018		37.17	
Single Family w/2 Sewer Lift Stat. [2]	per Unit	511	511	1.43	268		0.1368		49.92	
Single Family w/3 Sewer Lift Stat. [2]	per Unit	81	61	1.65	308		0.1888		6.88	
Subtotal - Single Family		4,004	4,093				0.8321		303.71	
Duplex/Triplex/Condo	per Unit	-	315	0.77	144		0.0454		16.58	
Multi-Family (Flat fee per Unit)	per Unit	322	1,226	0.71	134		0.1836		58.73	
Multi-Family (Sewer Lift Station) [2]	per Unit	1	3	0.89	184		0.0006		0.20	
Subtotal - Multi-Family		323	1,644				0.2086		76.51	
Non-Residential										
Auto Dealership	per 1,000 SF	3	32	0.20	37		0.0012		0.43	
Bank/Financial Inst.	per 1,000 SF	11	80	0.30	58		0.0046		1.63	
Bakery	per 1,000 SF	5	6	1.70	318		0.0020		0.72	
Bar	per 1,000 SF	7	16	0.70	131		0.0020		0.74	
Dry Cleaner	per 1,000 SF	3	5	1.70	318		0.0015		0.53	
Hall, Lodge, Auditorium	per 1,000 SF	6	51	0.30	56		0.0029		1.04	
Health Studio, Gym	per 1,000 SF	3	13	0.30	56		0.0007		0.27	
Health Studio, Gym	per 1,000 SF	2	34	1.00	167		0.0064		2.34	
Market w/Disposal Unit	per 1,000 SF	2	28	0.20	37		0.0010		0.36	
Market w/Disposal Unit	per 1,000 SF	41	117	0.40	75		0.0087		3.19	
Medical/Dental Office	per 1,000 SF	184	1,388	0.20	37		0.0519		18.94	
Business Office	per 1,000 SF	15	134	0.20	112		0.0050		1.83	
Place of Worship	per 1,000 SF	9	149	0.60	243		0.0167		6.10	
Public Agency	per 1,000 SF	2	10	1.30	468		0.0024		0.89	
Mortuary	per 1,000 SF	38	81	2.50	374		0.0381		13.00	
Restaurant	per 1,000 SF	11	14	2.00	37		0.0053		1.94	
Restaurant, Take-out Only	per 1,000 SF	156	1,103	0.20	37		0.0413		15.08	
Retail	per 1,000 SF	14	147	0.10	19		0.0027		1.00	
Warehouse	per 1,000 SF	2	10	0.20	37		0.0004		0.14	
Used Car Lot	per 10 fixtures	1	4	0.70	131		0.0005		0.16	
Car Wash	per Stall	32	184	0.20	75		0.0068		2.51	
Barber/Beauty Shop	per Chair	-	-	0.40	58		0.0000		0.00	
Bowling Alley	per Lane	5	139	0.30	58		0.0078		2.85	
Hotel, Motel	per Sleeping Room	3	84	0.50	94		0.0078		2.87	
Self Service Laundry	per Machine	27	280	0.10	19		0.0053		1.95	
Garage	per Bay	3	124	0.30	58		0.0070		2.54	
Rest Home/Boarding House	per Bed	7	34	1.00	187		0.0054		2.34	
School	per 100 Students	11	110	0.10	18		0.0021		0.75	
Service Station	per Pump	2	20	0.30	58		0.0011		0.41	
Theatre	per 100 Seats	2	20	0.30	58		0.0000		0.00	
Brewery	per 1,000 SF	607	4,401	4.80	898		0.2396		87.46	
Subtotal Non-Residential		4,934	10,038				1.2813		467.58	
SUBTOTAL							0.1370		50.0	
Infiltration/Inflow							1.4183		517.69	
TOTAL			6,552							

(1) Only flow is considered in this rate analysis. This is typical for smaller cities.

(2) The EDU and flow factor for units requiring use of sewer lift stations is increased to account for additional costs related to operating and maintaining the sewer lift station. See Tables D-1 and D-2 for details.

Other than this proposed change to the rate structure, there are no other proposed changes to the rate structure at this time (i.e., no proposed changes to the flow/EDU factors for non-residential users).

### 3.1.3 PROJECTED REVENUES AND EXPENSES

In the rate analysis, or revenue model, the expenses are projected based off of budgeted expenses for 2006-07. Expenses are projected through 2011-12 as shown in Table 3-3. More detailed tables that also show how these costs are allocated to treatment and collection are provided in Appendix C. The costs are projected based on the following percentages:

▪ Administrative Expenses	7.0%
▪ Materials and Services	5.0%
▪ Contract Operations	5.0%
▪ Capital Projects/Facility Replacement	5.0%
▪ Capital Outlay	5.0%
▪ Expenditure Reimburse (GF-Admin.)	5.0%
▪ Additional Costs due to Local Project	5.0%

Included in the expenses is an assumption for debt service. There are three scenarios assumed in the debt service calculation as shown in Table 3-4. The main difference between the scenarios is the assumed use of existing fund reserves applied to the project cost thereby reducing the amount of the project costs to be borrowed. Scenario 1 assumes no use of reserve funds, Scenario 2 assumes \$1,000,000 in reserve funds, and Scenario 3 assumes \$2,000,000 in reserve funds. The financing terms that are assumed are the same for each scenario.

It should be noted that the financing assumptions, such as the interest rate and term, are only assumptions. Actual financing terms will be determined by the lender at the time of financing and will be based on market conditions at that point in time.

The projected expenses also include a revenue offset line item. The rate analysis assumes that the City will have a minimum of 25 new EDUs of development each year and that they will pay a sewer connection fee. The revenue offset assumes that the City transfers the sewer treatment portion of the fee to the sewer operating fund to go towards new development's share of debt service on the project. Chapter 4 discusses the fee assumptions in greater detail.

Table 3-3  
Summary of Projected Expenses through 2011-12 – Scenario 1

	Budgeted	Projected				
	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Administrative Expenses	\$164,911	\$176,455	\$188,807	\$202,023	\$216,165	\$231,296
Materials and Services	\$469,600	\$493,080	\$517,734	\$543,821	\$570,802	\$599,342
Contract Operations	\$1,612,571	\$1,693,200	\$1,777,860	\$1,866,753	\$1,960,090	\$2,058,095
Capital Projects/Facility Replacement	\$0	\$600,000	\$630,000	\$661,500	\$694,575	\$729,304
Capital Outlay	\$25,000	\$26,250	\$27,563	\$28,941	\$30,388	\$31,907
Expenditure Reimburse (GF-Admin.)	\$87,208	\$91,568	\$96,147	\$100,954	\$106,002	\$111,302
Additional Costs due to Local Project	\$0	\$50,000	\$52,500	\$55,125	\$57,881	\$60,775
<b>Subtotal</b>	<b>\$2,359,290</b>	<b>\$3,130,553</b>	<b>\$3,290,609</b>	<b>\$3,458,916</b>	<b>\$3,635,902</b>	<b>\$3,822,021</b>
Current Debt Service	\$284,348	\$284,348	\$284,348	\$284,348	\$284,348	\$284,348
Additional Debt Service	\$0	\$826,000	\$826,000	\$826,000	\$826,000	\$826,000
General Reserve	\$180,485	\$310,252	\$335,190	\$331,323	\$318,777	\$317,653
Capital Reserve for Regional Project	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$2,824,123</b>	<b>\$4,551,153</b>	<b>\$4,736,148</b>	<b>\$4,900,587</b>	<b>\$5,065,027</b>	<b>\$5,250,022</b>
Credit/Offset for Other Revenues (Fee Revenue)	\$0	(\$70,171)	(\$70,171)	(\$70,171)	(\$70,171)	(\$70,171)
<b>Adjusted Total</b>	<b>\$2,824,123</b>	<b>\$4,480,982</b>	<b>\$4,665,976</b>	<b>\$4,830,416</b>	<b>\$4,994,856</b>	<b>\$5,179,850</b>
Percent Increase		58.7%	4.1%	3.5%	3.4%	3.7%

Table 3-4  
Summary of Financing Assumptions and Debt Service Calculation

Item	Assumptions	Estimated Bond Sizing		
		Scenario 1	Scenario 2	Scenario 3
		No Use of Capital Reserves	\$1 Million In Cap. Res. Used	\$2 Million In Cap. Res. Used
<b><u>Total Loan/Bonds</u></b>				
Total Estimated Project Costs		\$11,745,000	\$11,745,000	\$11,745,000
Less Reserves on Hand		\$0	(\$1,000,000)	(\$2,000,000)
Proceeds		\$11,745,000	\$10,745,000	\$9,745,000
Capitalized Interest	0 Months	\$0	\$0	\$0
Issuance Costs	4.0%	\$469,800	\$429,800	\$389,800
Bond Reserve Fund/WCRF		\$826,000	\$756,000	\$685,000
Loan/Bond Size		\$13,040,800	\$11,930,800	\$10,819,800
Adjustment for Rounding		\$19,200	\$17,200	\$16,200
Total Loan/Bond Size		\$13,060,000	\$11,948,000	\$10,836,000
<b><u>Annual Costs</u></b>				
Estimated Gross Debt Service		\$825,515	\$755,227	\$684,938
Estimated Gross Debt Service - Rounded		\$826,000	\$756,000	\$685,000
<b><u>Assumptions</u> <sup>(1)</sup></b>				
Interest Rate		4.75%	4.75%	4.75%
Term		30 Years	30 Years	30 Years
Bond Load Factor		1.1120	1.1120	1.1120

[1] Bond issuance assumptions are estimates only. Actual bond pricing will be determined based on market conditions at the time of bond issuance.

### 3.2 PROJECTED RATE IMPACT

Table 3-5 below summarizes the projected rate impact for 2007-08. The additional debt service from the capital improvement projects significantly impacts the rate needed to support the City. As shown on Table 3-5 the additional debt service adds another \$8.33 to \$10.05 per EDU in revenue needs (depending on whether the City uses existing reserves to fund part of the project or not).

In addition to the new debt service, there are increased operations and maintenance costs (O&M), which represents about an average of 4 percent cost increase per year. It was also assumed that the City would have on-going facility replacement needs for existing infrastructure (e.g., collection system, sewer lift stations, etc.). The model assumes approximately \$600,000 in these types of expenses in 2007-08, which adds approximately \$4.50 per month per EDU. It should be noted that this expense line item is intended to encompass annual depreciation as well.

Table 3-5  
Summary of Rate Impact for 2007-08

Item	Estimated Cost		
	Full Cost Financing	With \$1 M Reserves Applied to Prj. Cost	With \$2 M Reserves Applied to Prj. Cost
WWTP Facility Upgrade Project	\$11,745,000	\$10,745,000	\$9,745,000
Additional Financing Costs	\$1,315,000	\$1,203,000	\$1,091,000
<b>Subtotal Costs</b>	<b>\$13,060,000</b>	<b>\$11,948,000</b>	<b>\$10,836,000</b>
Estimated New Debt Service	\$826,000	\$756,000	\$685,000
Total Estimated EDUs	6,852	6,852	6,852
Annual Cost per EDU	\$120.55	\$110.34	\$99.97
Monthly Cost per EDU	\$10.05	\$9.19	\$8.33
Current Cost per EDU	\$35.00	\$35.00	\$35.00
<b>Estimated Cost per EDU</b>	<b>\$45.05</b>	<b>\$44.19</b>	<b>\$43.33</b>
Additional Est. Projected Rate Impact (2007-08)			
O&M Cost Increase	\$1.49	\$1.49	\$1.49
Capital Projects/Facility Replacement	\$4.50	\$4.50	\$4.50
General Reserve for Debt Service Coverage	\$3.46	\$3.22	\$3.18
<b>Subtotal</b>	<b>\$9.45</b>	<b>\$9.21</b>	<b>\$9.17</b>
<b>Total Estimated Cost per EDU FY2007-08</b>	<b>\$54.50</b>	<b>\$53.40</b>	<b>\$52.50</b>
<i>Difference (cost per month per EDU)</i>		\$1.10	\$2.00

The final rate component impact is one of providing adequate debt service coverage for purposes of meeting projected financing requirements. Lenders almost always include a debt service coverage covenant in loan or bond documents that require the borrower to set rates at a high enough level that net revenues will cover debt service by some factor ranging from as low as 1.10

times to as high as 1.60 times, depending on the credit quality of the borrower. The rate model has assumed a coverage ratio of at least 1.2 times (and 1.1 times excluding development impact fee revenue. These are only assumptions at this time, the actual coverage requirements will be determined at the time of financing.

Overall, it is projected that the minimum monthly rate per EDU would need to be increased from \$35.00 to \$54.50 as shown in the cash flow projection in Table 3-6 (Scenario 1), to \$53.40 in Table 3-7 (Scenario 2), or to \$52.50 in Table 3-8 (Scenario 3).

Table 3-9 shows the project rate increases for all customer categories through 2011-12.

It should be noted that there are residential units within the City that are designated as low income and are subsidized with Community Development Block Grant (CDBG) funding. These units receive a \$13.00 per month discount off of the current rate. It is assumed that this discount will continue to apply. These units (approximately 139 units) will receive a \$13.00 per month discount off of the adopted rate per the appropriate customer category (e.g., single family, multi-family, etc.). The rate reduction for low income households is back filled by the City from CDBG funds, so other rate payers will not bear costs that would otherwise be allocated to the low income households if there were no rate reduction.

## Section 3

## Sewer Rate Analysis &amp; Financing Plan

Table 3-6  
Cash Flow Summary – Full Project Cost Financed

	Inflation Assumption	Budget 2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
<b>Revenues</b>							
Monthly Charge		\$35.00	\$54.50	\$58.75	\$58.75	\$58.75	\$63.00
Sewer Sales		\$2,500,000	\$4,480,982	\$4,665,976	\$4,830,416	\$4,994,856	\$5,179,850
Other Revenues							
Sewer Connection Charges [1]		\$285,000	\$70,171	\$70,171	\$70,171	\$70,171	\$70,171
Interest Income		\$115,000	\$0	\$0	\$0	\$0	\$0
Other Revenues		\$0	\$0	\$0	\$0	\$0	\$0
Subtotal		\$115,000	\$0	\$0	\$0	\$0	\$0
Subtotal Revenues		\$2,880,000	\$4,551,153	\$4,736,148	\$4,900,587	\$5,065,027	\$5,250,022
<b>Expenses</b>							
Administrative Expenses	7.0%	\$184,811	\$175,455	\$188,807	\$202,023	\$216,165	\$231,256
Materials and Services	5.0%	\$459,600	\$493,080	\$517,734	\$543,821	\$570,802	\$599,342
Contract Operations	5.0%	\$1,612,571	\$1,593,200	\$1,777,860	\$1,866,753	\$1,960,080	\$2,058,095
Capital Projects/Facility Replacement [2]	5.0%	\$600,000	\$600,000	\$630,000	\$661,500	\$694,575	\$729,304
Capital Outlay	5.0%	\$25,000	\$26,250	\$27,563	\$28,941	\$30,389	\$31,907
Expenditure Reimburse (GF-Admin.)	5.0%	\$87,208	\$91,588	\$96,147	\$100,954	\$106,002	\$111,302
Additional Costs due to Local Project	5.0%		\$50,000	\$52,500	\$55,125	\$57,881	\$60,775
Subtotal Expenses		\$2,359,230	\$3,130,553	\$3,290,609	\$3,458,916	\$3,635,902	\$3,822,021
Net Revenue Before D/S & Depreciation		\$520,770	\$1,420,600	\$1,445,538	\$1,441,671	\$1,429,125	\$1,428,001
Debt Service							
Current Debt Service		\$284,348	\$284,348	\$284,348	\$284,348	\$284,348	\$284,348
Add'l Debt Service			\$826,000	\$826,000	\$826,060	\$826,000	\$828,000
Total Debt Service		\$284,348	\$1,110,348	\$1,110,348	\$1,110,348	\$1,110,348	\$1,110,348
Debt Service Coverage		1.83	1.28	1.30	1.30	1.29	1.29
Debt Service Coverage w/o Fee Transfer		0.30	1.22	1.24	1.24	1.22	1.22
Cap. Reserve for Regional Project [3]	5.0%	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal		\$0	\$0	\$0	\$0	\$0	\$0
Total Expenses		\$2,643,638	\$4,240,901	\$4,400,957	\$4,569,264	\$4,746,250	\$4,932,369
Net Revenue After D/S		\$235,362	\$310,252	\$335,190	\$331,323	\$318,777	\$317,653
Net Revenue as % of Total Expenses			7.3%	7.6%	7.3%	6.7%	6.4%
Beginning Operating Balance [4]		\$4,786,813	\$2,431,175	\$2,741,427	\$3,076,517	\$3,407,941	\$3,728,717
Net Revenues		\$238,382	\$310,252	\$335,190	\$331,323	\$318,777	\$317,653
Capital Projects Funded by Reserves		(\$2,592,000)					
Reserves Used for CIP Financing		\$0					
Ending Operating Balance		\$2,431,175	\$2,741,427	\$3,076,517	\$3,407,941	\$3,728,717	\$4,044,370
Target Operating Balance [5]		\$1,179,645	\$1,565,276	\$1,645,305	\$1,729,458	\$1,817,951	\$1,911,010

[1] Connection fees for 2006-07 are budgeted; For 2007-08 through 2011-12 the fee revenue is calculated assuming:

Calculated Dev Imp Fee Treatment Only \$2,807  
Number of New EDUS per Year 25.00 Total revenues = \$70,171.18

[2] Based on projected facility replacement/depreciation requirements. FY 2008-07 funded out of reserves.

[3] None Assumed.

[4] Cash and cash equivalents balance, end of fiscal year 2005-06 page 27 Audited Financial Statement.

[5] The target operating balance represents 6 months of operating expenses, excluding debt service.

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## Section 3

## Sewer Rate Analysis &amp; Financing Plan

Table 3-7  
Cash Flow Summary – Assuming \$1 M in Reserves Applied to Project Cost

	Inflation Assumption	Budget 2006-07	2007-08	2008-09	Projected 2009-10	2010-11	2011-12
<b>Revenues</b>							
Monthly Charge		\$35.00	\$53.40	\$55.40	\$57.40	\$59.40	\$61.60
Sewer Sales		\$2,500,000	\$4,390,796	\$4,555,246	\$4,719,695	\$4,884,144	\$5,065,038
Other Revenues							
Sewer Connection Charges [1]		\$265,000	\$70,171	\$70,171	\$70,171	\$70,171	\$70,171
Interest Income		\$115,000	\$0	\$0	\$0	\$0	\$0
Other Revenues		\$0	\$0	\$0	\$0	\$0	\$0
Subtotal		\$115,000	\$0	\$0	\$0	\$0	\$0
Subtotal Revenues		\$2,880,000	\$4,460,967	\$4,625,417	\$4,789,866	\$4,954,315	\$5,135,210
<b>Expenses</b>							
Administrative Expenses	7.0%	\$194,911	\$178,455	\$188,807	\$202,023	\$215,185	\$231,298
Materials and Services	5.0%	\$459,600	\$493,080	\$517,734	\$543,621	\$570,802	\$599,342
Contract Operations	5.0%	\$1,812,571	\$1,893,200	\$1,777,860	\$1,866,753	\$1,960,090	\$2,058,095
Capital Projects/Facility Replacement [2]	5.0%		\$600,000	\$630,000	\$661,500	\$694,575	\$729,304
Capital Outlay	5.0%	\$25,000	\$26,250	\$27,563	\$28,941	\$30,388	\$31,907
Expenditure Reimburse (GF-Admin)	5.0%	\$87,208	\$91,568	\$96,147	\$100,954	\$106,002	\$111,302
Additional Costs due to Local Project	5.0%		\$50,000	\$52,500	\$55,125	\$57,881	\$60,775
Subtotal Expenses		\$2,359,290	\$3,130,553	\$3,290,609	\$3,458,916	\$3,635,902	\$3,822,021
Net Revenue Before D/S & Depreciation		\$520,710	\$1,330,415	\$1,334,807	\$1,330,950	\$1,318,413	\$1,313,189
Debt Service							
Current Debt Service		\$284,348	\$284,348	\$284,348	\$284,348	\$284,348	\$284,348
Add'l Debt Service			\$756,000	\$756,000	\$756,000	\$756,000	\$756,000
Total Debt Service		\$284,348	\$1,040,348	\$1,040,348	\$1,040,348	\$1,040,348	\$1,040,348
Debt Service Coverage		1.83	1.28	1.28	1.28	1.27	1.26
Debt Service Coverage w/o Fee Transfer		0.90	1.21	1.22	1.21	1.20	1.19
Cap. Reserve for Regional Project [3]	5.0%	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal		\$0	\$0	\$0	\$0	\$0	\$0
Total Expenses		\$2,643,638	\$4,170,901	\$4,330,957	\$4,499,264	\$4,676,250	\$4,862,369
Net Revenue After D/S		\$236,362	\$290,067	\$294,459	\$290,602	\$278,065	\$272,841
Net Revenue as % of Total Expenses			7.0%	6.8%	6.5%	5.9%	5.6%
Beginning Operating Balance [4]		\$4,786,813	\$1,431,175	\$1,721,242	\$2,015,701	\$2,305,303	\$2,584,368
Net Revenues		\$236,362	\$290,067	\$294,459	\$290,602	\$278,065	\$272,841
Capital Projects Funded by Reserves		(\$2,592,000)					
Reserves Used for CIP Financing		(\$1,000,000)					
Ending Operating Balance		\$1,431,175	\$1,721,242	\$2,015,701	\$2,305,303	\$2,584,368	\$2,857,209
Target Operating Balance [5]		\$1,179,645	\$1,555,276	\$1,645,305	\$1,729,458	\$1,817,951	\$1,911,010

[1] Connection fees for 2006-07 are budgeted; For 2007-08 through 2011-12 the fee revenue is calculated assuming:

Calculated Dev Imp Fee Treatment Only \$2,907  
Number of New EDUS per Year 25.00 Total revenues = \$70,171.18

[2] Based on projected facility replacement/depreciation requirements. FY 2006-07 funded out of reserves.

[3] None Assumed.

[4] Cash and cash equivalents balance, end of fiscal year 2005-06, page 27 Audited Financial Statement.

[5] The target operating balance represents 6 months of operating expenses, excluding debt service.

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**Table 3-8**  
**Cash Flow Summary – Assuming \$2M in Reserves Applied to Project Cost**

	Inflation Assumption	Budget 2005-07	2007-08	2008-09	Projected 2009-10	2010-11	2011-12
<b>Revenues</b>							
Monthly Charge		\$35.00	\$52.50	\$54.25	\$56.25	\$58.25	\$60.50
Sewer Sales		\$2,500,000	\$4,316,794	\$4,460,587	\$4,625,137	\$4,789,586	\$4,974,531
<b>Other Revenues</b>							
Sewer Connection Charges [1]		\$265,000	\$70,171	\$70,171	\$70,171	\$70,171	\$70,171
Interest Income		\$115,000	\$0	\$0	\$0	\$0	\$0
Other Revenues		\$0	\$0	\$0	\$0	\$0	\$0
Subtotal		\$115,000	\$0	\$0	\$0	\$0	\$0
Subtotal Revenues		\$2,880,000	\$4,386,965	\$4,530,758	\$4,695,308	\$4,859,757	\$5,044,762
<b>Expenses</b>							
Administrative Expenses	7.0%	\$164,911	\$176,455	\$188,807	\$202,023	\$216,165	\$231,298
Materials and Services	5.0%	\$468,600	\$493,080	\$517,734	\$543,621	\$570,802	\$599,342
Contract Operations	5.0%	\$1,612,571	\$1,693,200	\$1,777,860	\$1,866,753	\$1,960,090	\$2,058,035
Capital Projects/Facility Replacement [2]	5.0%		\$600,000	\$630,000	\$661,500	\$694,575	\$729,304
Capital Outlay	5.0%	\$25,000	\$26,250	\$27,563	\$28,941	\$30,388	\$31,907
Expenditure Reimburse (GF-Admin.)	5.0%	\$67,208	\$91,588	\$98,147	\$100,954	\$105,002	\$111,302
Additional Costs due to Local Project	5.0%		\$50,000	\$52,500	\$55,125	\$57,881	\$60,775
Subtotal Expenses		\$2,358,290	\$3,130,553	\$3,290,609	\$3,458,916	\$3,635,902	\$3,822,021
Net Revenue Before D/S & Depreciation		\$520,710	\$1,256,413	\$1,240,149	\$1,236,392	\$1,223,855	\$1,222,742
<b>Debt Service</b>							
Current Debt Service		\$284,348	\$284,348	\$284,348	\$284,348	\$284,348	\$284,348
Add'l Debt Service			\$685,000	\$685,000	\$685,000	\$685,000	\$685,000
Total Debt Service		\$284,348	\$969,348	\$969,348	\$969,348	\$969,348	\$969,348
Debt Service Coverage		1.83	1.30	1.28	1.29	1.26	1.26
Debt Service Coverage w/o Fee Transfer		0.90	1.22	1.21	1.20	1.19	1.19
Cap. Reserve for Regional Project [3]	5.0%	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal		\$0	\$0	\$0	\$0	\$0	\$0
Total Expenses		\$2,643,638	\$4,099,901	\$4,259,957	\$4,428,264	\$4,605,250	\$4,791,369
Net Revenue After D/S		\$236,362	\$287,065	\$270,901	\$267,044	\$254,507	\$253,394
Net Revenue as % of Total Expenses			7.0%	6.4%	6.0%	5.5%	5.3%
<hr/>							
Beginning Operating Balance [4]		\$4,786,813	\$431,175	\$718,240	\$989,140	\$1,256,184	\$1,510,691
Net Revenues		\$236,362	\$287,065	\$270,901	\$267,044	\$254,507	\$253,394
Capital Projects Funded by Reserves		(\$2,592,000)					
Reserves Used for CIP Financing		(\$2,000,000)					
Ending Operating Balance		\$431,175	\$718,240	\$989,140	\$1,256,184	\$1,510,691	\$1,764,084
Target Operating Balance [5]		\$1,179,645	\$1,565,276	\$1,645,305	\$1,729,458	\$1,817,951	\$1,911,010

[1] Connection fees for 2005-07 are budgeted; For 2007-08 through 2011-12 the fee revenue is calculated assuming:

Calculated Dev Imp Fee Treatment Only \$2,807  
 Number of New EDUS per Year 25.00 Total revenues = \$70,171.18

[2] Based on projected facility replacement/depreciation requirements, FY 2006-07 funded out of reserves.

[3] None Assumed.

[4] Cash and cash equivalents balance, end of fiscal year 2005-06, page 27 Audited Financial Statement.

[5] The target operating balance represents 6 months of operating expenses, excluding debt service.

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Table 3-9  
Rate Summary - Current vs. Calculated Rates

	Current Rate	Local WWTP Project					Local WWTP Project will use of \$1.0 M In Cap Reserves				
		2007-08	2008-09	2009-10	2010-11	2011-12	2007-08	2008-09	2009-10	2010-11	2011-12
<b>Residential [1]</b>											
Single Family	per Unit	\$54.50	\$56.75	\$58.75	\$60.75	\$63.00	\$53.40	\$55.40	\$57.40	\$59.40	\$61.60
Single Family w/1 Sewer Lift Stat.	per Unit	\$66.25	\$68.98	\$71.41	\$73.84	\$76.58	\$64.91	\$67.34	\$69.77	\$72.20	\$74.88
Single Family w/2 Sewer Lift Stat.	per Unit	\$78.00	\$81.22	\$84.07	\$86.93	\$90.16	\$76.42	\$79.28	\$82.15	\$85.01	\$88.16
Single Family w/3 Sewer Lift Stat.	per Unit	\$89.74	\$93.45	\$96.74	\$100.03	\$103.75	\$87.94	\$91.23	\$94.52	\$97.82	\$101.44
Duplex/Triplex/Condo	per Unit	\$42.02	\$43.75	\$45.30	\$46.84	\$48.58	\$41.17	\$42.72	\$44.26	\$45.80	\$47.50
Multi-Family (Flat fee per Unit)	per Unit	\$38.91	\$40.52	\$41.95	\$43.38	\$44.99	\$38.13	\$39.56	\$40.99	\$42.41	\$43.98
Multi-Family (Sewer Lift Station)	per Unit	\$53.77	\$55.99	\$57.96	\$59.93	\$62.15	\$52.68	\$54.66	\$56.63	\$58.60	\$60.78
<b>Non-Residential</b>											
Auto Dealership	per 1,000 SF	\$10.90	\$11.35	\$11.75	\$12.15	\$12.60	\$10.68	\$11.08	\$11.48	\$11.88	\$12.32
Bank/Financial Inst.	per 1,000 SF	\$16.35	\$17.03	\$17.63	\$18.23	\$18.90	\$16.02	\$16.62	\$17.22	\$17.82	\$18.48
Bakery	per 1,000 SF	\$92.65	\$96.48	\$99.88	\$103.28	\$107.11	\$90.79	\$94.19	\$97.59	\$100.99	\$104.72
Bar	per 1,000 SF	\$38.15	\$39.73	\$41.13	\$42.53	\$44.10	\$37.38	\$38.78	\$40.18	\$41.58	\$43.12
Dry Cleaner	per 1,000 SF	\$92.65	\$96.48	\$99.88	\$103.28	\$107.11	\$90.79	\$94.19	\$97.59	\$100.99	\$104.72
Hall, Lodge, Auditorium	per 1,000 SF	\$16.35	\$17.03	\$17.63	\$18.23	\$18.90	\$16.02	\$16.62	\$17.22	\$17.82	\$18.48
Health Studio, Gym	per 1,000 SF	\$10.50	\$10.90	\$11.35	\$11.75	\$12.15	\$10.28	\$10.68	\$11.08	\$11.48	\$11.88
Market w/Disposal Unit	per 1,000 SF	\$35.00	\$36.75	\$38.50	\$40.25	\$42.00	\$33.75	\$35.50	\$37.25	\$39.00	\$40.75
Market w/Disposal Unit	per 1,000 SF	\$7.00	\$7.35	\$7.70	\$8.05	\$8.40	\$6.70	\$7.05	\$7.40	\$7.75	\$8.10
Medical/Dental Office	per 1,000 SF	\$10.90	\$11.35	\$11.75	\$12.15	\$12.60	\$10.68	\$11.08	\$11.48	\$11.88	\$12.32
Business Office	per 1,000 SF	\$10.90	\$11.35	\$11.75	\$12.15	\$12.60	\$10.68	\$11.08	\$11.48	\$11.88	\$12.32
Place of Worship	per 1,000 SF	\$21.00	\$22.05	\$23.10	\$24.15	\$25.20	\$20.05	\$21.10	\$22.15	\$23.20	\$24.25
Public Agency	per 1,000 SF	\$32.70	\$34.05	\$35.40	\$36.75	\$38.10	\$32.04	\$33.39	\$34.74	\$36.09	\$37.44
Mortuary	per 1,000 SF	\$70.85	\$73.78	\$76.71	\$79.64	\$82.57	\$69.42	\$72.35	\$75.28	\$78.21	\$81.14
Restaurant	per 1,000 SF	\$136.25	\$141.88	\$147.51	\$153.14	\$158.77	\$133.51	\$138.51	\$143.51	\$148.51	\$154.01
Restaurant, Take-out Only	per 1,000 SF	\$109.00	\$113.50	\$117.50	\$121.50	\$126.00	\$106.81	\$110.81	\$114.81	\$118.81	\$123.21
Retail	per 1,000 SF	\$10.90	\$11.35	\$11.75	\$12.15	\$12.60	\$10.68	\$11.08	\$11.48	\$11.88	\$12.32
Warehouse	per 1,000 SF	\$5.45	\$5.68	\$5.88	\$6.08	\$6.30	\$5.34	\$5.54	\$5.74	\$5.94	\$6.16
Used Car Lot	per 10 fixtures	\$10.90	\$11.35	\$11.75	\$12.15	\$12.60	\$10.68	\$11.08	\$11.48	\$11.88	\$12.32
Car Wash	per Stall	\$38.15	\$39.73	\$41.13	\$42.53	\$44.10	\$37.38	\$38.78	\$40.18	\$41.58	\$43.12
Barber/Beauty Shop	per Chair	\$10.90	\$11.35	\$11.75	\$12.15	\$12.60	\$10.68	\$11.08	\$11.48	\$11.88	\$12.32
Bowling Alley	per Lane	\$21.80	\$22.70	\$23.50	\$24.30	\$25.20	\$21.36	\$22.16	\$22.96	\$23.76	\$24.64
Hotel, Motel	per Sleeping Room	\$16.35	\$17.03	\$17.63	\$18.23	\$18.90	\$16.02	\$16.62	\$17.22	\$17.82	\$18.48
Self Service Laundry	per Machine	\$27.25	\$28.38	\$29.38	\$30.38	\$31.50	\$26.70	\$27.70	\$28.70	\$29.70	\$30.80
Garage	per Bay	\$5.45	\$5.68	\$5.88	\$6.08	\$6.30	\$5.34	\$5.54	\$5.74	\$5.94	\$6.16
Rest Home/Boarding House	per Bed	\$16.35	\$17.03	\$17.63	\$18.23	\$18.90	\$16.02	\$16.62	\$17.22	\$17.82	\$18.48
School	per 100 Students	\$35.00	\$36.75	\$38.50	\$40.25	\$42.00	\$33.75	\$35.50	\$37.25	\$39.00	\$40.75
Service Station	per Pump	\$3.50	\$3.68	\$3.88	\$4.08	\$4.20	\$3.42	\$3.62	\$3.82	\$4.02	\$4.22
Theatre	per 100 Seats	\$10.50	\$10.90	\$11.35	\$11.75	\$12.15	\$10.28	\$10.68	\$11.08	\$11.48	\$11.88
Brewery	per 1,000 SF	\$168.00	\$172.21	\$176.42	\$180.63	\$184.84	\$165.42	\$169.63	\$173.84	\$178.05	\$182.26

AUBR\_Sewer\_2007 mdl\_2 v2/Rate\_Sum 4/16/2007

3-12

Prepared by ECOLOGIC

Table 3-9  
Rate Summary - Current vs. Calculated Rates

	Current Rate	Local WWTP Project w/Use of \$2 M In Cap Reserves			
		2007-08	2008-09	2009-10	2010-11 2011-12
<b>Residential [1]</b>					
Single Family	\$35.00	\$52.50	\$54.25	\$56.25	\$58.25 \$60.50
Single Family w/1 Sewer Lift Stat.	\$42.56	\$63.82	\$65.94	\$68.38	\$70.81 \$73.54
Single Family w/2 Sewer Lift Stat.	\$50.10	\$75.14	\$77.64	\$80.50	\$83.36 \$86.58
Single Family w/3 Sewer Lift Stat.	\$57.65	\$88.45	\$89.34	\$92.63	\$95.92 \$99.63
Duplex/Triplex/Condo	\$24.00	\$40.48	\$41.83	\$43.37	\$44.91 \$46.65
Multi-Family (Flat fee per Unit)	\$24.00	\$37.49	\$38.74	\$40.16	\$41.59 \$43.20
Multi-Family (Sewer Lift Station)	\$31.55	\$51.80	\$53.52	\$55.50	\$57.47 \$56.69
<b>Non-Residential</b>					
Auto Dealership	\$7.00	\$10.50	\$10.85	\$11.25	\$11.65 \$12.10
Bank/Financial Inst.	\$10.50	\$15.75	\$16.28	\$16.88	\$17.48 \$18.15
Bakery	\$59.50	\$89.25	\$92.23	\$95.63	\$99.03 \$102.86
Bar	\$24.50	\$36.75	\$37.98	\$39.38	\$40.78 \$42.35
Dry Cleaner	\$59.50	\$89.25	\$92.23	\$95.63	\$99.03 \$102.86
Hall, Lodge, Auditorium	\$10.50	\$15.75	\$16.28	\$16.88	\$17.48 \$18.15
Health Studio, Gym	\$10.50	\$15.75	\$16.28	\$16.88	\$17.48 \$18.15
Market w/Disposal Unit	\$35.00	\$52.50	\$54.25	\$56.25	\$58.25 \$60.50
Market w/o Disposal Unit	\$7.00	\$10.50	\$10.85	\$11.25	\$11.65 \$12.10
Medical/Dental Office	\$14.00	\$21.00	\$21.70	\$22.50	\$23.30 \$24.20
Business Office	\$7.00	\$10.50	\$10.85	\$11.25	\$11.65 \$12.10
Place of Worship	\$7.00	\$10.50	\$10.85	\$11.25	\$11.65 \$12.10
Public Agency	\$21.00	\$31.50	\$32.55	\$33.75	\$34.95 \$36.30
Mortuary	\$45.50	\$68.25	\$70.53	\$73.13	\$75.73 \$78.65
Restaurant	\$70.00	\$105.00	\$108.51	\$112.51	\$116.51 \$121.01
Restaurant, Take-out Only	\$7.00	\$10.50	\$10.85	\$11.25	\$11.65 \$12.10
Retail	\$3.50	\$5.25	\$5.43	\$5.63	\$5.83 \$6.05
Warehouse	\$7.00	\$10.50	\$10.85	\$11.25	\$11.65 \$12.10
Used Car Lot	\$24.50	\$36.75	\$37.98	\$39.38	\$40.78 \$42.35
Car Wash	\$7.00	\$10.50	\$10.85	\$11.25	\$11.65 \$12.10
Barber/Beauty Shop	\$14.00	\$21.00	\$21.70	\$22.50	\$23.30 \$24.20
Bowling Alley	\$10.50	\$15.75	\$16.28	\$16.88	\$17.48 \$18.15
Hotel, Motel	\$17.50	\$26.25	\$27.13	\$28.13	\$29.13 \$30.25
Self Service Laundry	\$3.50	\$5.25	\$5.43	\$5.63	\$5.83 \$6.05
Garage	\$10.50	\$15.75	\$16.28	\$16.88	\$17.48 \$18.15
Rest Home/Boarding House	\$35.00	\$52.50	\$54.25	\$56.25	\$58.25 \$60.50
School	\$3.50	\$5.25	\$5.43	\$5.63	\$5.83 \$6.05
Service Station	\$10.50	\$15.75	\$16.28	\$16.88	\$17.48 \$18.15
Theatre	\$168.00	\$251.82	\$260.22	\$269.81	\$279.40 \$290.20
Brewery					

## Section 4

## Sewer Connection Fee

The City of Auburn currently charges a sewer connection fee of \$3,500 per dwelling unit (for both single and multi-family dwelling units), which was determined by the rate study conducted in 1995. Commercial and Industrial users are charged a minimum fee of \$3,609 plus \$5.25 per gallon of daily water use above 265 gallons per day, or on the basis of strength.

As discussed in Section 2, a portion of the WWTP Upgrade and Expansion project will provide capacity for future users. Approximately 18 percent, or \$2,135,455 in cost, is attributable to new development. Table 4-1 shows the fee associated with the project for new development.

Table 4-1  
Calculated Sewer Fee for Treatment Only

ITEM	Assumption	Local WWTP Project
New Development's Share of Total Project Cost		\$2,135,455
Financing Factor [1]	1.11	\$2,367,509
<b>TOTAL COST</b>		<b>\$4,502,963</b>
Additional Capacity Added (GPD)		300,000
<b>Cost per Gallon</b>		<b>\$15.01</b>
Gallons/Day per EDU		187
<b>Cost per EDU</b>		<b>\$2,807</b>

[1] Assumes that 100 percent of the costs are financed:

Financing Costs:

Amount Financed	\$2,135,454.55
Rate	4.75%
Term	30
Bond Load Factor	1.11
Annual Debt Service	\$150,098.78
Total Estimated Interest Charges Paid	\$2,367,508.80

This calculated fee is only for the WWTP project and does not include any buy-in to the existing facilities, particularly for the collection system. Therefore, it is recommended that the fee amount shown in Table 4-1 be added on or in addition to the existing fee charged by the City. As

such the existing fee could be considered a “buy-in” amount to the existing facilities. The revised fee per EDU is shown in Table 4-2. The fee amount also includes an administration charge to allow the City to recuperate costs associated with administering the fee program.

Table 4-2  
Revised Sewer Connection Fee per EDU

Item	Amount
Existing Fee Buy-In Amount	\$3,500
New Treatment Capacity	\$2,807
<b>Subtotal</b>	<b>\$6,306.85</b>
Administrative Fee at 2.5%	\$157.67
Total Fee per EDU	\$6,464.52
<b>Total Fee per EDU - Rounded</b>	<b>\$6,465.00</b>

It is proposed that the City consider altering how it charges actual land uses when developers pull building permits. The methodology proposed is similar to how Placer County charges its sewer development impact fee.

The fee per EDU, estimated above at \$6,465 would be multiplied times the equivalent dwelling unit factors that the City basis its monthly sewer charge on, as shown in Table 4-3.

Table 4-3  
EDU Factors by Type of Development

Type of Establishment	Equivalent Dwelling Units
<b>Residential</b>	
Single Family	1.000 per Unit
Duplex/Triplex/Condo	0.771 per Unit
Multi-Family	0.714 per Unit
Mobile Home Park	0.714 per Space/Unit
<b>Non-Residential</b>	
Auto Dealership	0.200 per 1,000 SF
Bank/Financial Inst.	0.300 per 1,000 SF
Bakery	1.700 per 1,000 SF
Bar	0.700 per 1,000 SF
Dry Cleaner	1.700 per 1,000 SF
Hall, Lodge, Auditorium	0.300 per 1,000 SF
Health Studio, Gym	0.300 per 1,000 SF
Market w/Disposal Unit	1.000 per 1,000 SF
Market w/o Disposal Unit	0.200 per 1,000 SF
Medical/Dental Office	0.400 per 1,000 SF
Office Building	0.200 per 1,000 SF
Place of Workshop	0.200 per 1,000 SF
Public Agency	0.600 per 1,000 SF
Mortuary	1.300 per Slumber Room
Restaurant	2.500 per 1,000 SF
Restaurant, Take-out Only	2.000 per 1,000 SF
Retail	0.200 per 1,000 SF
Warehouse	0.100 per 1,000 SF
Used Car Lot	0.200 per 10 fixtures
Car Wash	0.700 per Stall
Barber/Beauty Shop	0.200 per Chair
Bowling Alley	0.400 per Lane
Hotel, Motel	0.300 per Sleeping Room
Self Service Laundry	0.500 per Machine
Garage	0.100 per Bay
Rest Home/Boarding House	0.300 per Bed
School	1.000 per 100 Students
Service Station	0.100 per Pump
Theatre	0.300 per 100 Seats
Brewery	4.800 per 1,000 SF

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**Sewer Rate Model, Scenario 1 – 2007-08**



Table A-1  
Summary of Wastewater User Characteristics

Customer Category	Basis of Charge	Parcel Units/Accounts (A)	Billing Units	EDU Factor	Wastewater Characteristics (1)		Existing Treatment Capacity		Total Annual Capacity	
					ADWWF/User GPD (B)	Flow MGD (C)	Flow MGD (D)	Flow MGD (E)	Flow MGD (F)	Flow MGD (G)
Residential										
Single Family	per Unit	2,985	3,073	1.00	187	0.5747			209.77	
Single Family w/1 Sewer Lift Stat. (2)	per Unit	447	446	1.22	227	0.1018			37.17	
Single Family w/2 Sewer Lift Stat. (2)	per Unit	511	511	1.43	268	0.1368			49.92	
Single Family w/3 Sewer Lift Stat. (2)	per Unit	61	61	1.85	308	0.0188			6.86	
Subtotal - Single Family		4,004	4,093			0.8321			303.71	
Duplex/Triplex/Condo	per Unit	-	315	0.77	144	0.0454			16.68	
Multi-Family (Flat fee per Unit)	per Unit	322	1,226	0.71	134	0.1638			59.73	
Multi-Family (Sewer Lift Station) (2)	per Unit	1	3	0.96	184	0.0068			0.20	
Subtotal - Multi-Family		323	1,544			0.2086			76.51	
Non-Residential										
Auto Dealership	per 1,000 SF	3	32	0.20	37	0.0012			0.43	
Bank/Financial Inst.	per 1,000 SF	11	80	0.30	56	0.0045			1.93	
Bakery	per 1,000 SF	5	6	1.70	318	0.0020			0.72	
Bar	per 1,000 SF	7	10	0.70	131	0.0020			0.74	
Dry Cleaner	per 1,000 SF	3	5	1.70	318	0.0015			0.53	
Hotel, Lodge, Auditorium	per 1,000 SF	6	51	0.30	56	0.0028			1.04	
Health Studio, Gym	per 1,000 SF	3	13	0.30	187	0.0007			0.27	
Market w/Disposal Unit	per 1,000 SF	2	34	1.00	187	0.0084			2.34	
Market w/o Disposal Unit	per 1,000 SF	41	117	0.40	75	0.0010			0.38	
Medical/Dental Office	per 1,000 SF	184	1,388	0.20	37	0.0087			3.19	
Business Office	per 1,000 SF	15	134	0.20	112	0.0059			18.04	
Place of Worship	per 1,000 SF	9	149	0.60	243	0.0050			8.10	
Public Agency	per 1,000 SF	2	10	1.30	488	0.0024			0.89	
Mortuary	per 1,000 SF	38	81	2.50	374	0.0381			13.80	
Restaurant, Take-out Only	per 1,000 SF	11	14	2.00	37	0.0053			1.04	
Retail	per 1,000 SF	158	1,103	0.20	19	0.0413			16.08	
Warehouse	per 1,000 SF	14	147	0.10	37	0.0027			1.00	
Used Car Lot	per 10 fixtures	2	10	0.20	131	0.0004			0.14	
Car Wash	per Stall	1	4	0.70	37	0.0005			0.18	
Barber/Beauty Shop	per Chair	32	184	0.20	75	0.0009			2.51	
Bowling Alley	per Lane	-	-	0.40	-	0.0000			0.00	
Hotel, Motel	per Sleeping Room	5	139	0.30	56	0.0078			2.85	
Self Service Laundry	per Machine	3	84	0.50	84	0.0078			2.87	
Garage	per Bay	27	286	0.10	19	0.0053			1.85	
Rest Home/Boarding House	per Bed	3	124	0.30	56	0.0070			2.54	
School	per 100 Students	7	34	1.00	187	0.0084			2.34	
Service Station	per Pump	11	110	0.10	19	0.0021			0.75	
Theatre	per 100 Seats	2	20	0.30	56	0.0011			0.41	
Brewery	per 1,000 SF	-	-	4.80	898	0.0000			0.00	
Subtotal Non-Residential		607	4,401			0.2396			87.45	
SUBTOTAL		4,934	10,038			1.2813			467.88	
Estimated EDUs (based on Flow & Sewer Lift Charge)			6,852			1.4183			517.69	

(1) Only flow is considered in this rate analysis. This is typical for smaller cities.

(2) The EDU and flow factor for units requiring use of sewer lift stations is increased to account for additional costs related to operating and maintaining the sewer lift station. See Tables D-1 and D-2 for details.

Table A-2  
Projected Costs and Distribution between Collection and Treatment System

Table A-2 Projected Costs and Distribution between Collection and Treatment System											
	Inflation Adjustment	Budget 2006-07	2007-08	Allocation		Collection System		Treatment System			
				Collection	Treatment	Cost	Fixed	Variable	Cost	Fixed	Variable
Scenario 12007-08 Local WWTP Project											
Years Initiated: 1											
<u>Expenditures</u>											
Administrative Expenses	7.00%	\$164,911	\$176,455	20%	80%	\$35,291	\$35,291	\$141,164	\$141,164		
Materials and Services	5.00%	\$469,600	\$493,080	20%	80%	\$98,616	\$98,616	\$394,464	\$315,571		
Contract Operations	5.00%	\$1,612,571	\$1,693,200	20%	80%	\$338,640	\$338,640	\$1,354,560	\$1,354,560		
Capital Projects/Facility Replacement	5.00%	\$0	\$600,000	20%	80%	\$120,000	\$120,000	\$480,000	\$480,000		
Capital Outlay	5.00%	\$25,000	\$26,250	20%	80%	\$5,250	\$5,250	\$21,000	\$21,000		
Expenditure Reimburse (GF-Admin.)	5.00%	\$87,208	\$91,568	20%	80%	\$18,314	\$18,314	\$73,255	\$73,255		
Additional Costs due to Local Project	5.00%	\$0	\$50,000	0%	100%	\$0	\$0	\$50,000	\$50,000		
Subtotal		\$2,359,290	\$3,130,553			\$616,111	\$616,111	\$2,514,442	\$2,435,549		
Current Debt Service	0.00%	\$284,348	\$284,348	20%	80%	\$56,870	\$56,870	\$227,478	\$227,478		
Additional Debt Service	0.00%	\$0	\$826,000	20%	80%	\$165,200	\$165,200	\$660,800	\$660,800		
General Reserve		\$180,485	\$310,252	20%	80%	\$62,050	\$62,050	\$248,202	\$248,202		
Capital Reserve for Regional Project		\$0	\$0	0%	100%	\$0	\$0	\$0	\$0		
Credit/Offset for Other Revenues		\$0	(\$70,171)	20%	80%	(\$14,034)	(\$14,034)	(\$56,137)	(\$56,137)		
Total		\$2,824,123	\$4,480,982			\$886,196	\$886,196	\$3,594,785	\$3,515,893		
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2007-08 Local WWTTP Project													
Table A-3 Unit Cost Determination													
Cost Category	Allocated Operating Costs	Percent Allocation			Cost			Total Influent			Unit Cost Per		
		Flow	BOD	SS	Flow	BOD	SS	Flow MG	BOD Klbs	SS Klbs	Mgal of Flow (\$/Mgal)	Klb of BOD (\$/Klb)	Klb of SS (\$/Klb)
Collection System O&M Costs (1) [2]													
Fixed	\$616,111	90%	10.00%		\$554,499			467.67	0.00	0.00	\$1,166.67		\$131.74
Variable	\$0	90%	10.00%		\$0			467.67	0.00	0.00	\$0.00		\$0.00
Total Collection	\$616,111				\$554,499						\$1,166.67	\$0.00	\$131.74
Treatment O&M Costs													
Fixed	\$2,435,549	90%	10.00%		\$2,191,994			467.67	0.00	0.00	\$4,687.09		\$520.79
Variable	\$78,893	90%	10.00%		\$71,004			467.67	0.00	0.00	\$151.83		\$16.87
Total Treatment	\$2,514,442				\$2,262,998						\$4,838.92	\$0.00	\$537.66
Debt Service	\$1,110,348	90%	10.00%		\$999,313			467.67	0.00	0.00	\$2,136.81		\$237.42
Capital Reserve for Regional Project	\$0	90%	10.00%		\$0			467.67	0.00	0.00	\$0.00		\$0.00
SUBTOTAL	\$4,240,901										\$8,161.40		\$906.82
Other Cost Impacts													
General Reserve	\$310,252	90%	10.00%		\$279,227			467.67	0.00	0.00	\$597.06		\$68.34
Rounding	\$0	90%	10.00%		\$0			467.67	0.00	0.00	\$0.00		\$0.00
Credit/Offset for Other Revenues	(\$70,171)	90%	10.00%		(\$63,154)			467.67	0.00	0.00	(\$136.04)		(\$16.00)
Annual Payment to Lincoln for Treatment	\$240,081	90%	10.00%		\$216,073			467.67	0.00	0.00	\$462.02	\$0.00	\$51.34
Total	\$4,480,962				\$4,032,884						\$8,523.42	\$0.00	\$958.16

Table A-4 Allocation of Costs to Flow, BOD, and SS by Customer Category													
Unit Cost/Customer Category	Flow MG/Yr	BOD Kib/Yr	SS Kib/Yr	Operating Costs				Capital Costs				Subtotal	Total
				Collection		Treatment		Debt Service		Other Revenue Impacts			
				Flow (\$/MGal)	II (\$/MGal)	Flow (\$/MGal)	III (\$/MGal)	Flow (\$/MGal)	III (\$/MGal)	Flow (\$/MGal)	III (\$/MGal)		
Unit Cost				\$1,185.63	\$131.74	\$4,816.74	\$537.64	\$2,136.73	\$237.41	\$462.01	\$51.33	\$9,068	\$9,581
Residential													
Single Family	208.77	-	-	\$248,709	\$27,634	\$1,015,019	\$112,760	\$448,220	\$40,802	\$96,915	\$10,768	\$2,069,847	\$2,069,847
Single Family w/1 Sewer Lift Stat	37.17	-	-	\$4,837	\$4,837	\$179,860	\$10,984	\$79,424	\$0,802	\$17,173	\$1,008	\$356,143	\$356,143
Single Family w/2 Sewer Lift Stat	48.92	-	-	\$59,181	\$6,576	\$241,527	\$28,838	\$106,656	\$11,051	\$23,061	\$2,662	\$478,250	\$478,250
Single Family w/3 Sewer Lift Stat	8.95	-	-	\$8,129	\$933	\$33,174	\$3,988	\$14,649	\$1,628	\$3,167	\$352	\$65,688	\$65,688
Subtotal - Single Family	303.71	-	-	\$360,089	\$40,010	\$1,469,580	\$165,287	\$648,949	\$72,105	\$140,317	\$15,691	\$2,509,928	\$2,509,928
Duplex/Triplex/Condo													
Multi-Family (Flat fee per Unit)	16.58	-	-	\$19,654	\$2,184	\$80,211	\$8,912	\$35,420	\$3,935	\$7,659	\$851	\$168,825	\$168,825
Multi-Family (Sewer Lift Station)	59.73	-	-	\$70,817	\$7,869	\$295,016	\$32,113	\$127,026	\$14,781	\$27,586	\$3,066	\$572,284	\$572,284
Subtotal - Multi-Family	76.51	-	-	\$90,711	\$10,079	\$370,234	\$41,134	\$163,478	\$18,164	\$35,347	\$3,927	\$733,044	\$733,044
Non-Residential													
Auto Dealership	0.43	-	-	\$511	\$57	\$2,087	\$232	\$922	\$102	\$199	\$22	\$4,132	\$4,132
Bank/Financial Inst.	1.63	-	-	\$1,936	\$215	\$7,900	\$878	\$3,489	\$389	\$754	\$84	\$15,643	\$15,643
Bakery	0.72	-	-	\$850	\$94	\$3,470	\$399	\$1,587	\$176	\$343	\$38	\$7,115	\$7,115
Bar	0.74	-	-	\$628	\$70	\$2,665	\$285	\$1,133	\$128	\$245	\$27	\$6,079	\$6,079
Dry Cleaner	0.53	-	-	\$1,238	\$138	\$5,051	\$561	\$2,230	\$248	\$465	\$54	\$10,001	\$10,001
Health Lodge, Auditorium	1.04	-	-	\$322	\$36	\$1,316	\$146	\$581	\$65	\$128	\$14	\$2,605	\$2,605
Health Studio, Gym	2.27	-	-	\$2,780	\$309	\$11,344	\$1,260	\$5,009	\$557	\$1,093	\$120	\$22,482	\$22,482
Market w/Disposal Unit	2.34	-	-	\$426	\$47	\$1,741	\$193	\$789	\$85	\$168	\$18	\$3,446	\$3,446
Market w/Disposal Unit	0.36	-	-	\$3,778	\$420	\$15,418	\$1,713	\$6,808	\$766	\$1,777	\$184	\$30,523	\$30,523
Medical/Dental Office	3.19	-	-	\$22,480	\$2,496	\$9,682	\$1,086	\$4,047	\$449	\$1,634	\$168	\$8,502	\$8,502
Business Office	18.94	-	-	\$2,175	\$242	\$9,676	\$3,282	\$13,043	\$436	\$1,634	\$168	\$30,523	\$30,523
Place of Work/Hlp	1.83	-	-	\$7,237	\$804	\$29,537	\$477	\$1,806	\$211	\$446	\$46	\$8,502	\$8,502
Public Agency	6.10	-	-	\$1,052	\$117	\$4,283	\$747	\$2,982	\$1,209	\$540	\$58	\$10,143	\$10,143
Monitory	0.88	-	-	\$16,476	\$1,851	\$67,240	\$1,041	\$4,139	\$490	\$1,684	\$173	\$30,523	\$30,523
Restaurant	13.90	-	-	\$2,298	\$255	\$9,372	\$1,087	\$4,047	\$436	\$848	\$94	\$18,502	\$18,502
Restaurant, Take-out Only	1.94	-	-	\$17,855	\$1,984	\$72,871	\$8,097	\$32,179	\$3,575	\$13,562	\$139	\$24,008	\$24,008
Retail	15.05	-	-	\$1,188	\$132	\$4,847	\$559	\$2,140	\$228	\$463	\$51	\$8,597	\$8,597
Warehouse	1.00	-	-	\$162	\$18	\$681	\$73	\$292	\$32	\$1,238	\$7	\$2,605	\$2,605
Used Car Lot	0.14	-	-	\$227	\$25	\$925	\$103	\$408	\$45	\$1,733	\$10	\$3,446	\$3,446
Car Wash	0.19	-	-	\$2,978	\$331	\$12,164	\$1,350	\$5,367	\$596	\$2,777	\$29	\$4,490	\$4,490
Barber/Beauty Shop	2.51	-	-	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Bowling Alley	2.85	-	-	\$3,375	\$375	\$13,772	\$1,530	\$6,082	\$676	\$1,315	\$146	\$27,270	\$27,270
Hotel, Motel	2.87	-	-	\$3,399	\$378	\$13,871	\$1,541	\$6,125	\$681	\$1,324	\$147	\$27,467	\$27,467
Self Service Laundry	2.87	-	-	\$2,314	\$267	\$9,448	\$1,050	\$4,171	\$463	\$902	\$100	\$18,703	\$18,703
Garage	1.95	-	-	\$3,010	\$334	\$12,286	\$1,395	\$5,425	\$603	\$1,173	\$120	\$22,405	\$22,405
Rest Home/Boarding House	2.54	-	-	\$2,772	\$308	\$11,316	\$1,257	\$4,997	\$555	\$1,080	\$117	\$22,405	\$22,405
School	2.34	-	-	\$890	\$99	\$3,633	\$404	\$1,604	\$178	\$347	\$39	\$7,194	\$7,194
Service Station	0.76	-	-	\$482	\$54	\$1,969	\$218	\$870	\$97	\$188	\$21	\$3,899	\$3,899
Theatre	0.41	-	-	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Brewery	87.46	-	-	\$103,700	\$11,622	\$423,214	\$47,024	\$186,885	\$20,765	\$40,409	\$4,490	\$4,490	\$4,490
Subtotal	467.68	0.00	0.00	\$554,489	\$61,511	\$2,262,988	\$251,444	\$999,313	\$111,035	\$180,466	\$24,008	\$4,490	\$4,490
TOTAL													

Table A-5  
Detailed Sewer Rate Calculation

Scenario 1	2007-08
	Local WWTP Project

Customer Category	Number of Billing Units	Allocated Cost	Annual Cost Billing Unit	Monthly Cost	
				Billing Unit Mo. Charge	Basis of Charge
<b>Residential</b>					
Single Family	3,073	\$2,009,847	\$653.97	\$54.50	per Unit
Single Family w/1 Sewer Lift Stat.	448	\$356,143	\$794.96	\$66.25	per Unit
Single Family w/2 Sewer Lift Stat.	511	\$478,250	\$935.91	\$77.99	per Unit
Single Family w/3 Sewer Lift Stat.	51	\$65,688	\$1,076.85	\$89.74	per Unit
Subtotal - Single Family	4,093	\$2,909,928			
Duplex/Triplex/Condo	315	\$158,826	\$504.21	\$42.02	per Unit
Multi-Family (Flat fee per Unit)	1,226	\$572,284	\$466.93	\$38.91	per Unit
Multi-Family (Sewer Lift Station)	3	\$1,934	\$645.20	\$53.77	per Unit
Subtotal - Multi-Family	1,544	\$733,044			
<b>Non-Residential</b>					
Auto Dealership	32	\$4,132	\$130.79	\$10.90	per 1,000 SF
Bank/Financial Inst.	80	\$15,643	\$196.19	\$16.35	per 1,000 SF
Bakery	6	\$6,871	\$1,111.74	\$92.65	per 1,000 SF
Bar	16	\$7,115	\$457.78	\$38.15	per 1,000 SF
Dry Cleaner	5	\$5,079	\$1,111.74	\$92.65	per 1,000 SF
Hall, Lodge, Auditorium	51	\$10,001	\$196.19	\$16.35	per 1,000 SF
Health Studio, Gym	13	\$2,605	\$196.19	\$16.35	per 1,000 SF
Market w/Disposal Unit	34	\$22,462	\$653.97	\$54.50	per 1,000 SF
Market w/o Disposal Unit	26	\$3,446	\$130.79	\$10.90	per 1,000 SF
Medical/Dental Office	117	\$30,529	\$261.59	\$21.80	per 1,000 SF
Business Office	1,388	\$181,502	\$130.79	\$10.90	per 1,000 SF
Place of Workshop	134	\$17,576	\$130.79	\$10.90	per 1,000 SF
Public Agency	149	\$58,486	\$392.38	\$32.70	per 1,000 SF
Mortuary	10	\$8,502	\$850.16	\$70.85	per Slumber Room
Restaurant	81	\$133,143	\$1,634.92	\$136.24	per 1,000 SF
Restaurant, Take-out Only	14	\$18,558	\$1,307.93	\$108.99	per 1,000 SF
Retail	1,103	\$144,292	\$130.79	\$10.90	per 1,000 SF
Warehouse	147	\$9,597	\$65.40	\$5.45	per 1,000 SF
Used Car Lot	10	\$1,308	\$130.79	\$10.90	per 10 fixtures
Car Wash	4	\$1,631	\$457.78	\$38.15	per Stall
Barber/Beauty Shop	184	\$24,066	\$130.79	\$10.90	per Chair
Bowling Alley	-	\$0	\$0.00	\$0.00	per Lane
Hotel, Motel	139	\$27,270	\$196.19	\$16.35	per Sleeping Room
Self Service Laundry	84	\$27,467	\$326.98	\$27.25	per Machine
Garage	286	\$18,703	\$65.40	\$5.45	per Bay
Rest Home/Boarding House	124	\$24,328	\$196.19	\$16.35	per Bed
School	34	\$22,405	\$653.97	\$54.50	per 100 Students
Service Station	110	\$7,194	\$65.40	\$5.45	per Pump
Theatre	20	\$3,899	\$196.19	\$16.35	per 100 Seats
Brewery	-	\$0	\$0.00	\$0.00	per 1,000 SF
<b>TOTAL</b>		<b>\$4,480,982</b>			

rate\_calc

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**Sewer Customers & EDU Factors**

Table B-1  
Summary of Existing Rates

Customer	Factor	Rate	Basis	2006-07	
				Assessment	Billing Units
<b>Residential</b>					
Single Family	1.00	\$35.00	per Unit	\$1,236,060.00	2,943
Multi-Family (Flat fee per Unit)	0.69	\$24.00	per Unit	\$443,412.00	1,540
Multi-Family (Sewer Lift Station)	0.90	\$31.55	per Unit	\$1,135.00	3
CDBG \$13.00/mo Reduction	0.63	\$22.00	per Unit	\$34,140.00	129
CDBG 1SFD w/Disc 1 SFD w/oDisc	1.63	\$57.00	per Unit	\$684.00	1
CDBG \$13.00/mo w/lift station	0.84	\$29.56	per Unit	\$2,128.32	6
CDBG w/Two Lift Stations	1.06	\$37.10	per Unit	\$890.40	2
CDBG w/3 Lift Station	1.28	\$44.65	per Unit	\$0.00	0
CDBG 1 Apt w/Disc	0.31	\$11.00	per Unit	\$132.00	1
SFD w/1 Lift Station	1.22	\$42.56	per Unit	\$225,738.24	442
SFD w/2 Lift Station	1.43	\$50.10	per Unit	\$306,010.80	509
SFD w/3 Lift Station	1.65	\$57.65	per Unit	\$42,199.80	61
<b>Non-Residential</b>					
Auto Dealership	0.20	\$7.00	per 1,000 SF	\$2,653.98	32
Bank/Financial Inst.	0.30	\$10.50	per 1,000 SF	\$10,046.40	80
Bakery	1.70	\$59.50	per 1,000 SF	\$4,412.52	6
Bar	0.70	\$24.50	per 1,000 SF	\$4,569.39	16
Dry Cleaner	1.70	\$59.50	per 1,000 SF	\$3,261.72	5
Hall, Lodge, Auditorium	0.30	\$10.50	per 1,000 SF	\$6,423.06	51
Health Studio, Gym	0.30	\$10.50	per 1,000 SF	\$1,672.94	13
Market w/Disposal Unit	1.00	\$35.00	per 1,000 SF	\$14,426.16	34
Market w/o Disposal Unit	0.20	\$7.00	per 1,000 SF	\$2,213.40	26
Medical/Dental Office	0.40	\$14.00	per 1,000 SF	\$19,606.78	117
Office Building	0.20	\$7.00	per 1,000 SF	\$116,566.63	1,388
Place of Workshop	0.20	\$7.00	per 1,000 SF	\$11,287.92	134
Public Agency	0.60	\$21.00	per 1,000 SF	\$37,561.94	149
Mortuary	1.30	\$45.50	per Slumber Room	\$5,460.00	10
Restaurant	2.50	\$87.50	per 1,000 SF	\$85,508.85	81
Restaurant, Take-out Only	2.00	\$70.00	per 1,000 SF	\$11,918.76	14
Retail	0.20	\$7.00	per 1,000 SF	\$92,669.64	1,103
Warehouse	0.10	\$3.50	per 1,000 SF	\$6,163.84	147
Used Car Lot	0.20	\$7.00	per 10 fixtures	\$840.00	10
Car Wash	0.70	\$24.50	per Stall	\$1,176.00	4
Barber/Beauty Shop	0.20	\$7.00	per Chair	\$15,456.00	184
Bowling Alley	0.40	\$14.00	per Lane	\$0.00	0
Hotel, Motel	0.30	\$10.50	per Sleeping Room	\$17,514.00	139
Self Service Laundry	0.50	\$17.50	per Machine	\$17,640.00	84
Garage	0.10	\$3.50	per Bay	\$12,012.00	286
Rest Home/Boarding House	0.30	\$10.50	per Bed	\$15,624.00	124
School	1.00	\$35.00	per 100 Students	\$14,389.20	34
Service Station	0.10	\$3.50	per Pump	\$4,620.00	110
Theatre	0.30	\$10.50	per 100 Seats	\$2,504.04	20
Brewery	4.80	\$168.00	per 1,000 SF	\$0.00	0
Total				\$2,830,729.73	

\*existing rates\*

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**Projected Costs and Allocation Detail**



Table C-1  
Summary of Projected Expenses

	Budgeted		Projected			
	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Administrative Expenses	\$164,911	\$176,455	\$188,807	\$202,023	\$216,165	\$231,296
Materials and Services	\$469,600	\$493,080	\$517,734	\$543,621	\$570,802	\$599,342
Contract Operations	\$1,612,571	\$1,693,200	\$1,777,860	\$1,866,753	\$1,960,090	\$2,058,095
Capital Projects/Facility Replacement	\$0	\$600,000	\$630,000	\$661,500	\$694,575	\$729,304
Capital Outlay	\$25,000	\$26,250	\$27,563	\$28,941	\$30,388	\$31,907
Expenditure Reimburse (GF-Admin.)	\$87,208	\$91,568	\$96,147	\$100,954	\$106,002	\$111,302
Additional Costs due to Local Project	\$0	\$50,000	\$52,500	\$55,125	\$57,881	\$60,775
<b>Subtotal</b>	<b>\$2,359,290</b>	<b>\$3,130,553</b>	<b>\$3,290,609</b>	<b>\$3,458,916</b>	<b>\$3,635,902</b>	<b>\$3,822,021</b>
Current Debt Service	\$284,348	\$284,348	\$284,348	\$284,348	\$284,348	\$284,348
Additional Debt Service	\$0	\$826,000	\$826,000	\$826,000	\$826,000	\$826,000
General Reserve	\$180,485	\$310,252	\$335,190	\$331,323	\$318,777	\$317,653
Capital Reserve for Regional Project	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$2,824,123</b>	<b>\$4,551,153</b>	<b>\$4,736,148</b>	<b>\$4,900,587</b>	<b>\$5,065,027</b>	<b>\$5,250,022</b>
Credit/Offset for Other Revenues (Fee Revenue)	\$0	(\$70,171)	(\$70,171)	(\$70,171)	(\$70,171)	(\$70,171)
<b>Adjusted Total</b>	<b>\$2,824,123</b>	<b>\$4,480,982</b>	<b>\$4,665,976</b>	<b>\$4,830,416</b>	<b>\$4,994,856</b>	<b>\$5,179,850</b>
Percent Increase		58.7%	4.1%	3.5%	3.4%	3.7%

Table C-2 Projected Costs and Distribution between Collection and Treatment System											
	Inflation Adjustment	Budget 2006-07	2007-08	Scenario 1		2007-08		Local WWTP Project			
				Collection	Treatment	Cost	Fixed	Variable	Cost	Fixed	Variable
Allocation											
Collection System											
Treatment System											
Years Inflated: 1											
Expenditures											
Administrative Expenses	7.00%	\$164,911	\$176,455	20%	80%	\$35,291	\$35,291	\$141,164	\$141,164		
Materials and Services	5.00%	\$469,600	\$493,080	20%	80%	\$98,616	\$98,616	\$394,464	\$394,464		
Contract Operations	5.00%	\$1,612,571	\$1,693,200	20%	80%	\$338,640	\$338,640	\$1,354,560	\$1,354,560		
Capital Projects/Facility Replacement	5.00%	\$0	\$600,000	20%	80%	\$120,000	\$120,000	\$480,000	\$480,000		
Capital Outlay	5.00%	\$25,000	\$26,250	20%	80%	\$5,250	\$5,250	\$21,000	\$21,000		
Expenditure Reimburse (GF-Admin.)	5.00%	\$87,208	\$91,568	20%	80%	\$18,314	\$18,314	\$73,255	\$73,255		
Additional Costs due to Local Project	5.00%	\$0	\$50,000	0%	100%	\$0	\$0	\$50,000	\$50,000		
Subtotal		\$2,359,290	\$3,130,553			\$616,111	\$616,111	\$2,514,442	\$2,435,549		
Current Debt Service	0.00%	\$284,348	\$284,348	20%	80%	\$56,870	\$56,870	\$227,478	\$227,478		
Additional Debt Service	0.00%	\$0	\$826,000	20%	80%	\$165,200	\$165,200	\$660,800	\$660,800		
General Reserve		\$180,485	\$310,252	20%	80%	\$62,050	\$62,050	\$248,202	\$248,202		
Capital Reserve for Regional Project		\$0	\$0	0%	100%	\$0	\$0	\$0	\$0		
Credit/Offset for Other Revenues		\$0	(\$70,171)	20%	80%	(\$14,034)	(\$14,034)	(\$56,137)	(\$56,137)		
Total		\$2,824,123	\$4,480,982			\$886,196	\$886,196	\$3,594,785	\$3,515,893		
						\$0	\$0		\$78,893		
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\*proj\_costs\*

Table C-3 Projected Costs and Distribution between Collection and Treatment System											
	Inflation Adjustment	Budget 2006-07	2008-09	Allocation		Collection System		Treatment System			
				Collection	Treatment	Cost	Fixed	Variable	Cost	Fixed	Variable
Years Inflated: 2											
<b>Expenditures</b>											
Administrative Expenses	7.00%	\$184,911	\$188,807	20%	80%	\$37,761	\$37,761	\$151,045	\$151,045		
Materials and Services	5.00%	\$469,600	\$517,734	20%	80%	\$103,547	\$103,547	\$414,187	\$331,350		
Contract Operations	5.00%	\$1,612,571	\$1,777,860	20%	80%	\$355,572	\$355,572	\$1,422,288	\$1,422,288		
Capital Projects/Facility Replacement	5.00%	\$0	\$630,000	20%	80%	\$126,000	\$126,000	\$504,000	\$504,000		
Capital Outlay	5.00%	\$25,000	\$27,563	20%	80%	\$5,513	\$5,513	\$22,050	\$22,050		
Expenditure Reimburse (GF-Admin.)	5.00%	\$87,208	\$96,147	20%	80%	\$19,229	\$19,229	\$76,917	\$76,917		
Additional Costs due to Local Project	5.00%	\$0	\$52,500	0%	100%	\$0	\$0	\$52,500	\$52,500		
<b>Subtotal</b>		<b>\$2,359,290</b>	<b>\$3,290,608</b>			<b>\$647,622</b>	<b>\$647,622</b>	<b>\$2,642,988</b>	<b>\$2,560,160</b>		
Current Debt Service	0.00%	\$284,348	\$284,348	20%	80%	\$56,870	\$56,870	\$227,478	\$227,478		
Additional Debt Service	0.00%	\$0	\$826,000	20%	80%	\$165,200	\$165,200	\$660,800	\$660,800		
General Reserve		\$180,485	\$335,190	20%	80%	\$67,038	\$67,038	\$268,152	\$268,152		
Capital Reserve for Regional Project		\$0	\$0	0%	100%	\$0	\$0	\$0	\$0		
Credit/Offset for Other Revenues		\$0	(\$70,171)	20%	80%	(\$14,034)	(\$14,034)	(\$56,137)	(\$56,137)		
<b>Total</b>		<b>\$2,824,123</b>	<b>\$4,665,976</b>			<b>\$922,695</b>	<b>\$922,695</b>	<b>\$3,743,281</b>	<b>\$3,660,444</b>		
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\*proj\_costs

Table C-4 Projected Costs and Distribution between Collection and Treatment System												
	Inflation Adjustment	Budget 2006-07	2009-10	Allocation		Collection System		Treatment System				
				Collection	Treatment	Cost	Fixed	Variable	Cost	Fixed	Variable	
			Years Inflated: 3									
<b>Expenditures</b>												
Administrative Expenses	7.00%	\$164,911	\$202,023	20%	80%	\$40,405	\$40,405	\$161,618	\$161,618			
Materials and Services	5.00%	\$469,600	\$543,621	20%	80%	\$108,724	\$108,724	\$434,897	\$434,897			
Contract Operations	5.00%	\$1,612,571	\$1,866,753	20%	80%	\$373,351	\$373,351	\$1,493,402	\$1,493,402			
Capital Projects/Facility Replacement	5.00%	\$0	\$661,500	20%	80%	\$132,300	\$132,300	\$529,200	\$529,200			
Capital Outlay	5.00%	\$25,000	\$28,941	20%	80%	\$5,788	\$5,788	\$23,153	\$23,153			
Expenditure Reimburse (GF-Admin.)	5.00%	\$87,208	\$100,954	20%	80%	\$20,191	\$20,191	\$80,763	\$80,763			
Additional Costs due to Local Project	5.00%	\$0	\$55,125	0%	100%	\$0	\$0	\$55,125	\$55,125			
Subtotal		\$2,359,290	\$3,458,916			\$680,758	\$680,758	\$2,778,158	\$2,691,179			
Current Debt Service	0.00%	\$284,348	\$284,348	20%	80%	\$56,870	\$56,870	\$227,478	\$227,478			
Additional Debt Service	0.00%	\$0	\$826,000	20%	80%	\$165,200	\$165,200	\$660,800	\$660,800			
General Reserve		\$180,485	\$331,323	20%	80%	\$66,265	\$66,265	\$265,059	\$265,059			
Capital Reserve for Regional Project		\$0	\$0	0%	100%	\$0	\$0	\$0	\$0			
Credit/Offset for Other Revenues		\$0	(\$70,171)	20%	80%	(\$14,034)	(\$14,034)	(\$56,137)	(\$56,137)			
Total		\$2,824,123	\$4,830,416			\$955,058	\$955,058	\$3,875,358	\$3,788,379			
						\$0	\$0		\$86,979			
									proj_costs			

Scenario 1	2010-11
	Local WWTP Project

Prepared by ECO:LOGIC

Table C-6  
Projected Costs and Distribution between Collection and Treatment System

	Inflation Adjustment	Budget 2006-07	2011-12		Allocation		Collection System		Treatment System	
			5		Collection		Fixed		Variable	
			Years Inflated:		Treatment		Cost		Cost	
<b>Expenditures</b>										
Administrative Expenses	7.00%	\$164,911		\$231,296	20%	80%	\$46,259	\$46,259	\$185,037	\$185,037
Materials and Services	5.00%	\$489,600		\$599,342	20%	80%	\$119,868	\$119,868	\$479,473	\$383,579
Contract Operations	5.00%	\$1,612,571		\$2,058,095	20%	80%	\$411,619	\$411,619	\$1,646,476	\$1,646,476
Capital Projects/Facility Replacement	5.00%	\$0		\$729,304	20%	80%	\$145,861	\$145,861	\$583,443	\$583,443
Capital Outlay	5.00%	\$25,000		\$31,907	20%	80%	\$6,381	\$6,381	\$25,526	\$25,526
Expenditure Reimburse (GF-Admin.)	5.00%	\$87,208		\$111,302	20%	80%	\$22,260	\$22,260	\$89,042	\$89,042
Additional Costs due to Local Project	5.00%	\$0		\$80,775	0%	100%	\$0	\$0	\$80,775	\$80,775
<b>Subtotal</b>		\$2,359,290		\$3,822,021			\$752,249	\$752,249	\$3,069,772	\$2,973,877
Current Debt Service	0.00%	\$284,348		\$284,348	20%	80%	\$56,870	\$56,870	\$227,478	\$227,478
Additional Debt Service	0.00%	\$0		\$826,000	20%	80%	\$165,200	\$165,200	\$660,800	\$660,800
General Reserve		\$180,485		\$317,653	20%	80%	\$63,531	\$63,531	\$254,122	\$254,122
Capital Reserve for Regional Project		\$0		\$0	0%	100%	\$0	\$0	\$0	\$0
Credit/Offset for Other Revenues		\$0		(\$70,171)	20%	80%	(\$14,034)	(\$14,034)	(\$56,137)	(\$56,137)
<b>Total</b>		\$2,824,123		\$5,179,850			\$1,023,815	\$1,023,815	\$4,156,035	\$4,060,141
									\$0	\$95,895

"incl. costs"



**Table D-1**  
**Estimated Cost of O&M for Sewer Lift Stations**

Item	Cost
Misc. Repairs	\$20,000
Major Equipment Replacement	\$60,000
Odor Control Chemicals	\$5,000
Phone systems: (35/ mo x 12 PS*12 months)	\$4,000
Labor (25 hrs per week x \$65/ hr x 52 weeks)	\$84,500
Power (5,000 / per month x 12 mos)	\$60,000
<b>Total</b>	<b>\$233,500</b>

**Table D-2**  
**Allocated Cost to Sewer Lift Stations**

Units served by Lift Stations	Units	Wtd. Units
SFD Units w/Lift Station	448	448
SFD Units w/2 Lift Stations	511	1,022
SFD Units w/3 Lift Stations	61	183
MFD Units w/Lift Station	3	3
<b>Total</b>		<b>1,656</b>
Annual Lift Station Cost		\$233,500
Monthly Lift Station Cost		\$19,458.33
Cost per Lift Station Use		\$11.75

**Table D-3**  
**Calculated Lift Station Surcharge**

Item	In Dollars	In EDU's
Charge Per EDU (from table 3-5)	\$54.50	
Charge per Lift Station		
1 Lift Surcharge	\$11.75	0.22
2 Lift Surcharge	\$23.50	0.43
3 Lift Surcharge	\$35.25	0.65



**EXHIBIT "A"**  
**SCHEDULE OF SEWER RATE AND CHARGES**  
**APRIL 2007**

**I. USER FEES**

Each user connected to the sewer system shall pay up to \$54.50 per sewer unit. The sewer units are listed on Attachment A. For purposes of collecting sewer charges, the following residential categories shall be defined as follows:

- **Single Family Unit:** A single family unit is defined generally as a single dwelling unit per parcel. However, if the parcel has a detached second unit ("granny unit"), the second unit would be charged at the duplex rate.
- **Duplex, Triplex, Condo, or Townhome:** These residential units would include 2 attached units or 3 attached or detached units per parcel.
- **Multi-Family Unit or Apartment:** This residential category would include 4 or more attached units per parcel.
- **Mobile Home:** This category would refer to a mobile home unit in a mobile home park.

**II. CONNECTION AND PLANT EXPANSION FEES**

For each connection to the city-owned public sewer a sewer connection and plant fee shall be paid at the time of building permit issuance. The connection fee is shall be determined based on the then current fee per sewer unit. The sewer units are listed on Attachment B. The sewer connection and plant expansion fee shall be as follows:

- July 1, 2007: \$3,500
- July 1, 2008: \$4,500
- July 1, 2009: \$5,500
- July 1, 2010: \$6,465

**III. RATE AND FEE ADJUSTMENTS**

The schedule of charges may be altered or adjusted by action of the Auburn City Council. Automatic yearly adjustments shall occur on July 1 as provided by the City Ordinance to reflect variation in the construction cost index (Engineering News Record - 20- City Cost Index)

**Attachment A**  
**Sewer Rates – Sewer Units and Basis of Charge**

<b>Customer Category</b>	<b>Sewer Unit</b>	<b>Basis of Charge</b>
<b><u>Residential</u></b>		
Single Family	1.00	per Unit
Single Family w/1 Sewer Lift Stat.	1.22	per Unit
Single Family w/2 Sewer Lift Stat.	1.43	per Unit
Single Family w/3 Sewer Lift Stat.	1.65	per Unit
Duplex/Triplex/Condo/Townhome	0.77	per Unit
Multi-Family	0.71	per Unit
Multi-Family w/1 Sewer Lift Station	0.99	per Unit
Mobile Home	0.71	per Space/Unit
<b><u>Non-Residential</u></b>		
Auto Dealership	0.20	per 1,000 SF
Bank/Financial Inst.	0.30	per 1,000 SF
Bakery	1.70	per 1,000 SF
Bar	0.70	per 1,000 SF
Dry Cleaner	1.70	per 1,000 SF
Hall, Lodge, Auditorium	0.30	per 1,000 SF
Health Studio, Gym	0.30	per 1,000 SF
Market w/Disposal Unit	1.00	per 1,000 SF
Market w/o Disposal Unit	0.20	per 1,000 SF
Medical/Dental Office	0.40	per 1,000 SF
Business Office	0.20	per 1,000 SF
Place of Workship	0.20	per 1,000 SF
Public Agency	0.60	per 1,000 SF
Mortuary	1.30	per Slumber Room
Restaurant	2.50	per 1,000 SF
Restaurant, Take-out Only	2.00	per 1,000 SF
Retail	0.20	per 1,000 SF
Warehouse	0.10	per 1,000 SF
Used Car Lot	0.20	per 10 fixtures
Car Wash	0.70	per Stall
Barber/Beauty Shop	0.20	per Chair
Bowling Alley	0.40	per Lane
Hotel, Motel	0.30	per Sleeping Room
Self Service Laundry	0.50	per Machine
Garage	0.10	per Bay
Rest Home/Boarding House	0.30	per Bed
School	1.00	per 100 Students
Service Station	0.10	per Pump
Theatre	0.30	per 100 Seats
Brewery	4.80	per 1,000 SF

**Attachment B**  
**Sewer Connection Fee – Sewer Units and Basis of Charge**

<b>Customer Category</b>	<b>Sewer Unit</b>	<b>Basis of Charge</b>
<b><u>Residential</u></b>		
Single Family	1.000	per Unit
Duplex/Triplex/Condo	0.771	per Unit
Multi-Family	0.714	per Unit
Mobile Home Park	0.714	per Space/Unit
<b><u>Non-Residential</u></b>		
Auto Dealership	0.200	per 1,000 SF
Bank/Financial Inst.	0.300	per 1,000 SF
Bakery	1.700	per 1,000 SF
Bar	0.700	per 1,000 SF
Dry Cleaner	1.700	per 1,000 SF
Hall, Lodge, Auditorium	0.300	per 1,000 SF
Health Studio, Gym	0.300	per 1,000 SF
Market w/Disposal Unit	1.000	per 1,000 SF
Market w/o Disposal Unit	0.200	per 1,000 SF
Medical/Dental Office	0.400	per 1,000 SF
Office Building	0.200	per 1,000 SF
Place of Workshop	0.200	per 1,000 SF
Public Agency	0.600	per 1,000 SF
Mortuary	1.300	per Slumber Room
Restaurant	2.500	per 1,000 SF
Restaurant, Take-out Only	2.000	per 1,000 SF
Retail	0.200	per 1,000 SF
Warehouse	0.100	per 1,000 SF
Used Car Lot	0.200	per 10 fixtures
Car Wash	0.700	per Stall
Barber/Beauty Shop	0.200	per Chair
Bowling Alley	0.400	per Lane
Hotel, Motel	0.300	per Sleeping Room
Self Service Laundry	0.500	per Machine
Garage	0.100	per Bay
Rest Home/Boarding House	0.300	per Bed
School	1.000	per 100 Students
Service Station	0.100	per Pump
Theatre	0.300	per 100 Seats
Brewery	4.800	per 1,000 SF

RESOLUTION NO. 14-

RESOLUTION PRELIMINARILY ACCEPTING SEWR RATE ANALYSIS

THE CITY COUNCIL OF THE CITY OF AUBURN DOES HEREBY RESOLVE:

That the City Council of the City of Auburn does hereby preliminarily accept a sewer rate analysis and direct staff to give notice of proceedings pursuant to Proposition 218.

DATED: April 28, 2014

\_\_\_\_\_  
Bridget Powers, Mayor

ATTEST:

\_\_\_\_\_  
Stephanie L. Snyder, City Clerk

I, Stephanie L. Snyder, City Clerk of the City of Auburn, hereby certify that the foregoing resolution was duly passed at a regular meeting of the City Council of the City of Auburn held on the 28<sup>th</sup> day of April 2014 by the following vote on roll call:

Ayes:

Noes:

Absent:

\_\_\_\_\_  
Stephanie L. Snyder, City Clerk